

# Elephant Brand is available Now!

See your nearest dealer for attractive fall discounts.

## ALBERTA

ACME.....Frank L. Harriman  
AIRDRIE.....Walter L. Moen  
ALCOMDALE.....Falls Farm Equipment  
ALHAMBRA.....J. B. Killick  
ALIX.....Peterson's Service  
ALLIANCE.....J. W. Bateman  
ANDREW.....Imperial Motors  
ATHABASCA.....A. C. Hyde  
BARRHEAD.....R. H. Ott  
BASHAW.....N. J. Holt & Sons Limited  
BASSANO.....X. L. Feed & Supply Limited  
BEAVERLODGE  
Foster's Seed & Feed Limited  
BEISEKER.....Beiseker Motors Limited  
BENALTO.....G. R. Loughheed  
BENTLEY.....J. E. Morrisroe  
BERWYN  
Berwyn Truck & Implement Company Ltd.  
BLACKFALDS.....E. J. Wadey  
BONNYVILLE.....J. C. Fontaine  
BOTTREL.....F. S. Gathercole  
BOW ISLAND.....Bishop & Malo  
BOYLE.....Boyle Farm Supply  
BRETON.....B. F. Flesher  
BROOKS  
McCabe Grain Company Limited, Box 489  
BRUDERHEIM.....Strong & Sons Limited  
BYEMOOR.....T. O. Martin  
CALGARY.....Crown Seed & Feed Limited,  
125—10th Avenue West  
CAMROSE.....Schnell & Barrie Limited  
CARBON.....Walter Schaefer  
CARDSTON.....Wolff & Son Implements Limited  
CARMANGAY.....Hubka Sales & Service  
CARSTAIRS.....J. A. Chrystal  
CASTOR.....F. H. Compton  
CHAUVIN.....G. G. Shantz Limited  
CHIPMAN.....Peter Stefura  
CLANDONALD.....Maik Brothers  
CLARESHOLM.....S. & S. Farm Supply  
CLYDE.....W. J. Von Loewenstein  
COCHRANE.....Whittle Implements  
CONSORT.....Central Garage  
CORONATION.....G. Bruggeneate  
CROSSFIELD.....W. A. Hurt & Son  
DAYSLAND.....E. J. Brown  
DEL BONITA.....D. O. Sommerfeldt  
DELIA.....Wm. Gibson  
DERWENT.....Algot & McConnell  
DEWBERRY.....Mrs. I. W. Braithwaite  
DICKSON.....Christiansen Brothers  
DIDSBURY.....H. E. Oke  
DONALDA.....Donalda Feed Service Limited  
DRUMHELLER  
E. O. Parry Auto & Farm Machinery Ltd.  
DUCHESS  
D. E. Berg, Mailing Address—Millicent  
EAGLESHAM.....Arnold Wilde  
EDGERTON.....Miles Hardware & Lumber  
EDMONTON  
Cunningham Fertilizers & Chemicals Ltd.,  
5920—103rd Street  
EDSON.....Adrian Maris & Sons  
EGREMONT.....M. J. Chmilar  
ELNORA.....T. B. Thompson  
ENTWISTLE.....I. Brown  
FAIRVIEW.....Red Line Implements Limited  
FALHER.....Falher Truck & Implements Limited  
FORESTBURG.....Halberg & Oberg  
FORT MACLEOD.....Tom Story  
FORT SASKATCHEWAN  
Alderson McLeod Equipment Limited  
GADSBY.....W. F. Townsend  
GALAHAD.....Ernie Kuefler  
GIBBONS.....Knott Brothers  
GLEICHEN.....Gleichen Implements  
GRANDE PRAIRIE  
J. O. Littleton, 10135—102nd Avenue  
GRANUM.....C. P. Cox  
HAIRY HILL.....Orest Arechuk  
HANNA.....K & B Motors  
HARDISTY.....W. K. Drever  
HAY LAKES.....Maple Leaf Service  
HAYNES.....C. C. Baker  
HEISLER.....Martz & Schulte  
HERRONTON.....R. G. Despas  
HIGH PRAIRIE  
G. F. Bishop Equipment Limited  
HIGH RIVER.....Wm. Howie  
HILL SPRING.....G. Harker  
HOLDEN.....Olsen & Armstrong  
HUGHENDEN.....Hughenden Motors  
HYTHE.....N. S. Inkster  
INNISFAIL.....G. E. Sparks  
IRMA.....P. E. Jones Company  
JOFFRE.....Ross Howard Stewart  
KELSEY.....P. A. Zimmerman  
KITSCOTY.....E. Blair  
LAC LA BICHE.....M. Hamar

LACOMBE.....Allan Hodge  
LEDUC.....Chisholm & Light Limited  
LEGAL.....J. B. Lamoureux  
LETHBRIDGE.....Bowns Supply Centre Limited  
1710—2nd Avenue South  
LLOYDMINSTER  
Esler Lightfoot Machinery Limited  
LOUGHEED.....Ness Brothers  
MADDEN.....R. Dodd  
MALLAIG.....W. J. Dechaine  
MANNING.....F. J. Dechant  
MANNVILLE.....Mannville Motors  
MARWAYNE.....W. G. Giles  
MAYERTHORPE.....P. Trynehy  
MEDICINE HAT  
Farm Land Supply Centre, P.O. Box 848  
MILLET.....L. B. Wilk  
MILO.....L. H. Phillips & Sons Limited  
MONITOR.....Early's General Store  
MORINVILLE.....Krauskopf Brothers  
MORRIN  
E. O. Parry Auto & Farm Machinery Ltd.  
MUNDARE.....Diduch Motors  
MYRNAM.....M. Misanehuk  
NAMPA.....S. H. Hibbard  
NANTON.....Western Farm Equipment Limited  
NEW NORWAY.....L. L. Christian  
OKOTOKS.....Halpenny Motors  
OLDS.....Johnny Johansen  
ONOWAY.....G. J. Scholze  
PARADISE VALLEY  
Churchill Farm Equipment  
PENHOLD.....Stewart Supplies (Penhold) Limited  
PINCHER CREEK  
Pineher Creek Co-op Association Ltd.  
PONOKA.....Auten Brothers  
PRENTISS  
D. E. Herrick, R.R. No. 2, Lacombe  
PROVOST.....Schielke & Bertschi  
RADWAY.....Mrs. F. Pyesmany  
RED DEER  
Stewart Supplies (Penhold) Limited  
REDWATER.....S. Dorosh  
RED WILLOW.....W. A. Large  
RIMBEY.....Rimbey Farm Equipment Limited  
ROCKYFORD.....A. E. Velker & Son  
ROCKY MOUNTAIN HOUSE  
Butterwick Farm & Ranch Supplies Ltd.  
ROSALIND.....W. F. MacDonald & Son  
ROSEBUD.....A. W. P. Noy  
ROUND HILL.....B. O. Hagen  
RUMSEY.....R. H. Walker  
RYLEY.....F. G. Loades  
SANGUDO.....David L. Ovans  
SCANDIA  
Bow Slope Shipping Association Limited  
SEBA BEACH.....A. F. Wood  
SEXSMITH.....Sexsmith Garage Company  
SMOKY LAKE.....Lazaruk & Ratsoy  
SPIRIT RIVER.....Porterfield Implements  
SPRING COULEE  
K. C. Long, Box 178, Cardston  
SPRUCE GROVE  
Spruce Grove Feed & Farm Supplies Ltd.  
STANDARD.....T. Fraser  
STAVELY.....S. S. Norby  
STETTLER.....L. G. Iles  
STRATHMORE.....Gibson Machinery Sales  
STROME.....Loesch's Service  
SUNDRE.....Sundre Hardware  
SWALWELL.....F. C. Wulff  
SYLVAN LAKE.....Lakeview Garage Limited  
THORHILD.....S. Kolach  
THORSBY.....W. L. Perley  
THREE HILLS.....H. T. Howe & Son  
TOFIELD.....Degen Farm Equipment  
TORRINGTON.....G. E. Hodgson  
TROCHU.....McKee Implements  
TWO HILLS.....G. E. Pawliuk & Son  
VAUXHALL.....J. V. McCarley  
VEGREVILLE.....R. Ferguson  
VERMILION.....G. C. Webb  
VETERAN.....A. Young  
VILNA.....Central Hardware  
VULCAN.....M. A. Jesse  
WAINWRIGHT.....Oldham Farm Equipment  
WANHAM.....George H. Shea  
WARNER.....M. F. Erickson  
WARSPITE.....Warspite Feed Mill  
WASKATENA.....Waskatenau Motors  
WEMBLEY.....Bunyan Hardware  
WESTLOCK.....F. Merryweather (1962) Limited  
WETASKIWIN.....Pocock & Brown Limited  
WILDWOOD.....Hutchison Motors  
WILLINGDON.....Star Service  
WIMBORNE.....K. Glass  
WOKING.....C. W. Herrick  
WRENTHAM.....Merlin C. Grover

# COUNTRY GUIDE

Vol. 83, No. 9—SEPTEMBER 1964

THE FARM MAGAZINE

Editor: DON BARON

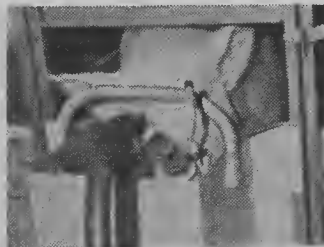
## Associate Editors:

CLIFF FAULKNER—Calgary, Alta.  
PETER LEWINGTON—London, Ont.

## Home and Family Section:

ELVA FLETCHER  
GWEN LESLIE

## In This Issue



This sow at the Connaught Laboratories farm at Bolton, Ont., appears to be reflecting that slop feeding was never like this. For a report on the modern look in automated liquid feeding turn to "Liquid Feed for Swine" on page 16.

From the slope behind the new home they designed and built themselves, Dorothy and Eugene Cyr, of Pincher Creek, Alta., have an uninterrupted view of the picturesque district in which they farm. Read about their farm and home on pages 18 and 44.



## Featured

13. What about Machinery Co-ops?
14. Groundwater
15. Make Saline Soils Productive
16. Liquid Feed for Swine

18. Diversified Farm
21. Sheep Are His Profitable Sideline
39. The Bittersweet (Fiction)
52. Sackville Harness Shop

## News and Views

4. Weather
6. Editorials
7. Corn Prospects Across Canada
8. Guideposts

9. News Highlights
54. Letters
54. Rural Route Letter

## Farm Practice

22. Livestock — How to Keep Hogs Healthy
27. Dairying — Is Loose Housing on the Way Out?
28. Soils and Crops — Why Drainage Pays
32. Mechanics — Collapsible Plywood Bins

33. Management — Farm Credit Needs to Double
34. Horticulture — Weed Control in Shelterbelts
35. Poultry — Egg Industry Grows
35. Workshop
36. What's New

## Home and Family

20. Buying a Carpet?
38. Homemakers' Hints
42. Let's Think It Over
43. Canadian Conference on the Family
44. Home on a Hillside
45. Indoor Roses

46. Patterns — We Love Stretch
47. In the Kitchen — Pacific Harvest
48. Handicrafts — Handknits
49. Beauty Treatment for Furniture
50. Boy and Girl
51. Tips for Teen-Age Voters
55. Laundry Tips

COVER: Percy Sadtke finishes 1,400 hogs a year on his farm at Wainfleet in Ontario's Niagara Peninsula. Here, he checks the water bowl in the slat-floored piggery. The pigs are Yorkshire-Landrace crossbreeds.—Don Smith photo.

Contents of this publication are copyrighted and may only be reproduced with the permission of the editor.

Country Guide, incorporating the Nor'West Farmer and Farm & Home, is printed and published by The Public Press Ltd.

President and Publisher: R. C. BROWN General Manager: J. S. KYLE  
Advertising Sales Manager: D. A. LOGAN Circulation Manager: R. W. McGUIRE

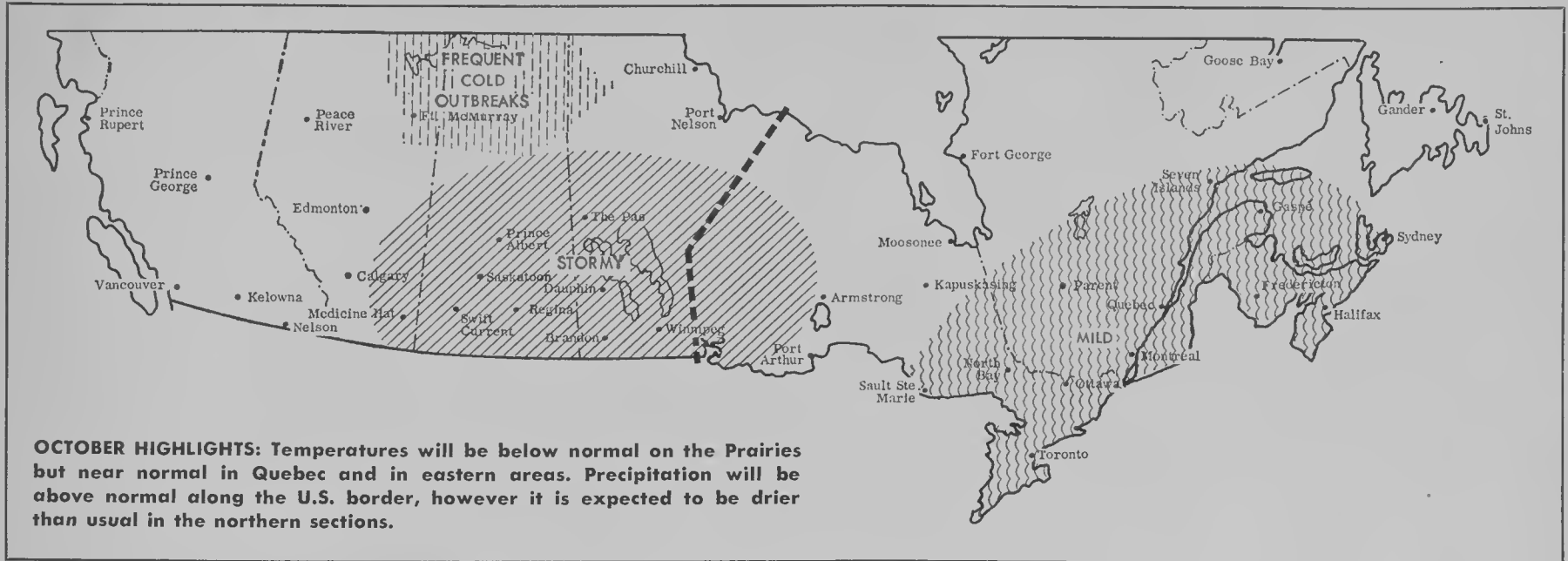
Head Office: 1760 Ellice Avenue, Winnipeg 21, Manitoba.

Eastern Office: 150 Eglinton Avenue East, Toronto 12, Ontario.

Subscription rates in Canada—\$1.00 one year, \$1.50 two years, \$2.00 three years, \$3.00 five years. Outside Canada—\$1.50 per year. Single copies 25¢. Authorized as second class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Postmasters return Forms 29B and 67B to 1760 Ellice Avenue, Winnipeg 21, Manitoba.

Serving Canadian Farmers Since 1882

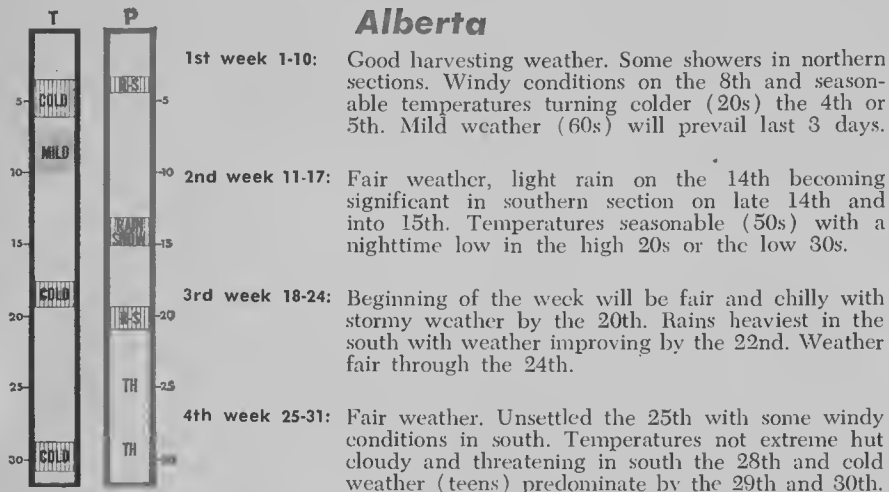
GET MORE FROM YOUR LAND WITH THE QUALITY BRAND



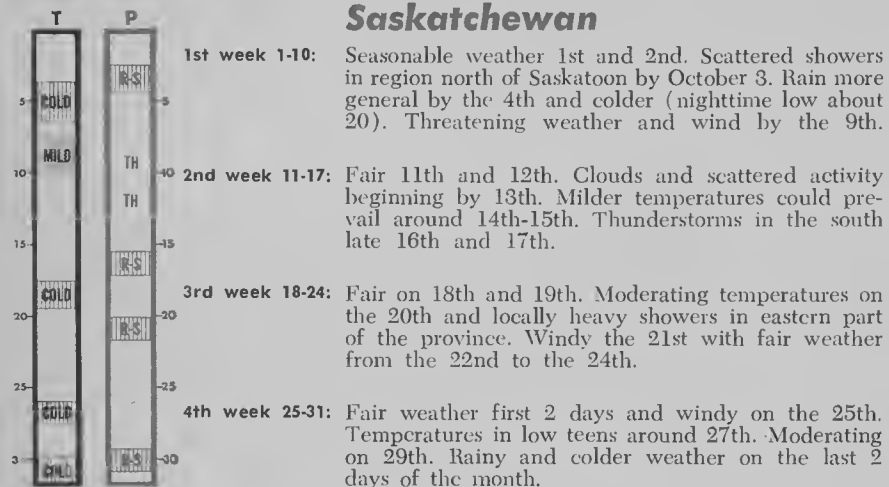
## OCTOBER 1964

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

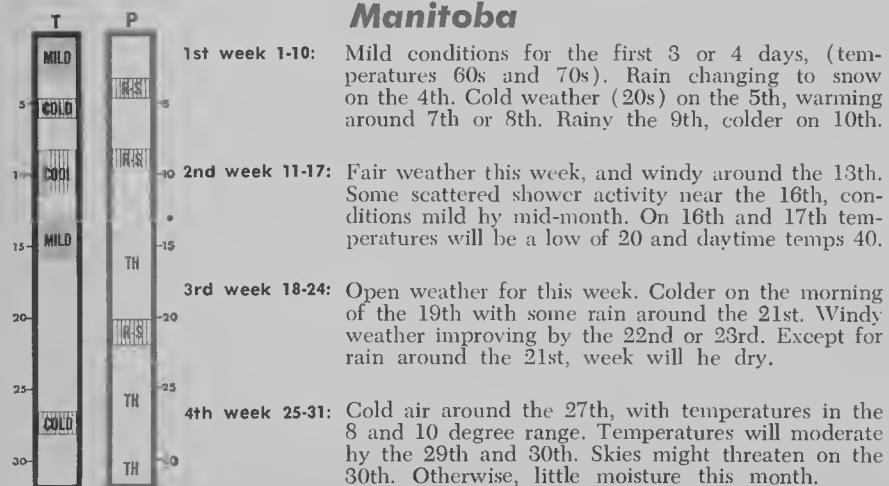
### Alberta



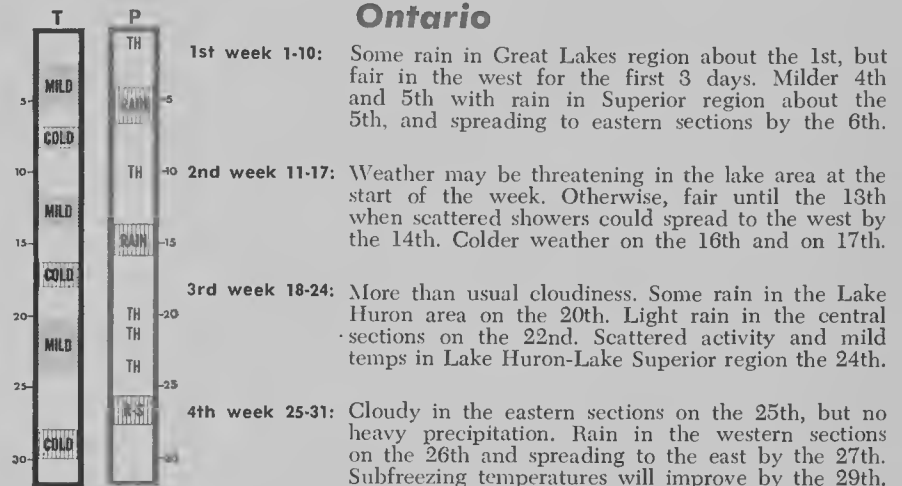
### Saskatchewan



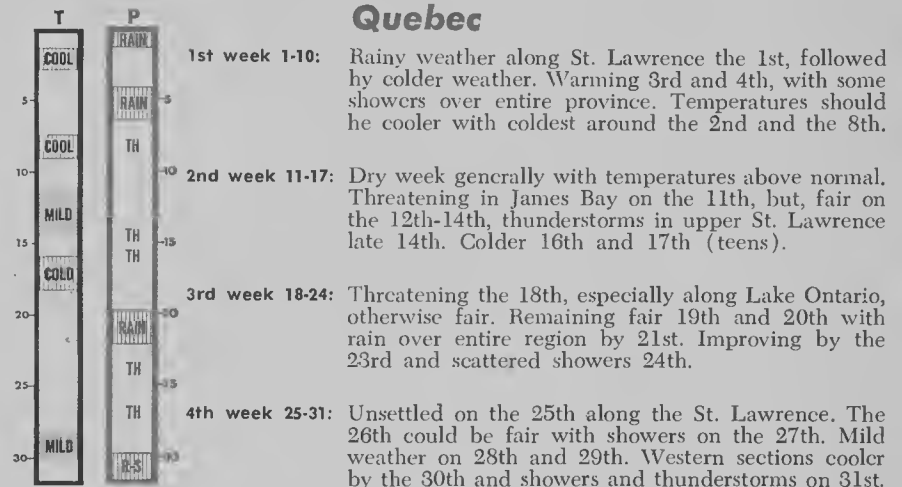
### Manitoba



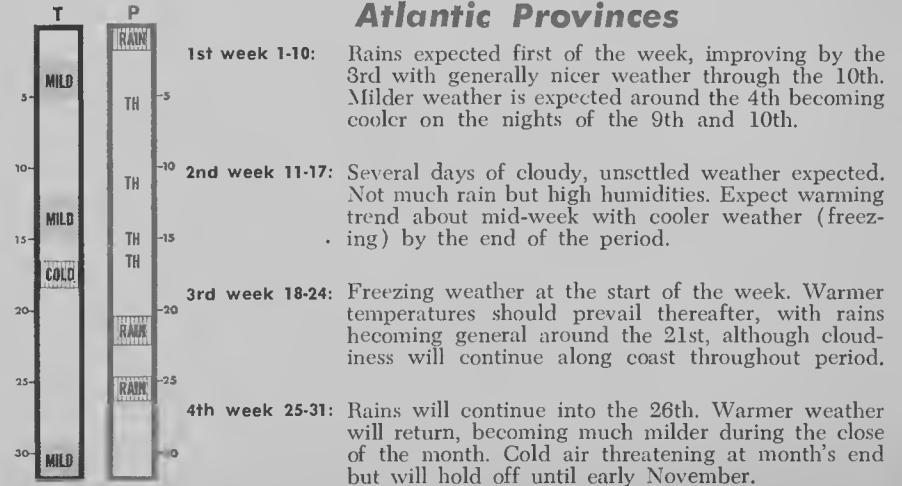
### Ontario



### Quebec



### Atlantic Provinces



Key to Abbreviations: T, temperature; P, precipitation; CL, cooler; WM, warmer; TH, threatening; SH, showers; R-S, rain or snow.



## **Extra effort is necessary because farmers own this Company**

It's pleasant to deal with a friendly agent. But farming is a business and good service is more important. United Grain Growers feel your agent should:

- Work hard
- Be absolutely honest
- Really know the grain business

Sometimes good service means a U.G.G. agent will have to work a bit late. Cleaning grain. Loading cars. Paperwork. He has to be ready for next day's business.

You have a right to expect that kind of service because farmers own this Company.



***The Farmers' Company***

# Editorials

## A Remarkable Year

THE PAST 12 MONTHS have been truly remarkable ones for Canadian agriculture. Last fall, prairie wheat growers harvested their biggest crop in history. Since then, the country has been straining its resources to move this crop into export. Records were set all along the line. When the crop year closed on July 31, exports totaled well over 650 million bushels and included about 600 million bushels of grain with another 55 million bushels of wheat flour. Exports of bulk wheat alone totaled 535 million bushels, over 50 per cent more than the old record of 354 million bushels set back in 1929. Total wheat and wheat flour exports of 590 million compare with 407.5 million in that year.

For Western Canada, a combination of the biggest wheat crop in history plus the biggest wheat sales in history add up to undoubtedly the best year that prairie farmers have ever known.

It has been a year to produce and to sell. But it has been more than that. The revenue it brought to prairie farmers is not only being reflected in a higher standard of living — in the purchase of such things as new cars and new houses — it is also being invested in the farm enterprise. It is being used to buy machinery and equipment, and to set up swine and feedlot and beef cow enterprises. Western farmers, in many cases, are moving toward a new diversity and a new strength which will stand them in good stead in the years ahead.

Even after this unusual year, prospects for the grain business, which remains the foundation of Western agriculture, remain good. At time of writing, a big, although not a bumper

crop was being harvested. Market prospects, although not as bright as a year ago, are far from bleak. Export sales are virtually certain to be substantially higher than the long-term average.

While the spotlight has been on the prairies in recent months, Eastern Canada is also caught up in rapid development. Acreage of grain corn has increased rapidly in the past 3 years, indicating that the attention given to this crop in recent years has been well justified and that farmers are discovering it does, in fact, represent a worthwhile opportunity for them.

Total corn acreage, including that grown for silage production, has reached an estimated record high of more than 1,200,000 acres. One extension worker predicts that this trend will continue, and that within 3 or 4 years the total acreage could reach 2 million acres.

The market is waiting for this growth, because despite the rapid increase in production in recent years, Ontario growers are still not meeting the grain requirements of the livestock industry and such other industries as cereal manufacturers and whiskey distilleries. Imports of this crop from the United States have been running at about 30 million bushels per year.

The growth of the corn industry is important in itself. It is well to remember as well that the development of the corn industry also represents a whole new philosophy of farming. It is now certain that producers will use this and other developments as they continue to develop specialized farming systems, carefully integrating the most appropriate crop-

ping and livestock programs in keeping with their own resources and abilities.

It would be foolish to imagine that agriculture's troubles are behind it but there is no doubt that the industry has progressed into a new and dynamic stage. Together, farmers and extension workers, governments and commercial organizations, food handlers and processors, comprise a highly specialized and competent team which produces farm products and sells them on local and world markets.

Farm people today are investing the money they earn and the money they borrow to develop more efficient farm units. They are building a sound base from which to deal with the challenges and opportunities of the future. V

## Information or Propaganda

THE IMPORTANCE TO CANADA'S farmers of the role of Minister of Agriculture is self-evident. It is by his authority, for instance, that the Department of Agriculture research program is carried on. Since most agricultural research done in this country is the direct concern of that department, the Minister occupies a vital position regarding the program. The decisions he makes will ultimately be reflected in the pocketbooks of Canada's farmers.

Since research is of no use to agriculture until such time as its results are passed along to farmers, the information program of the Department of Agriculture is of equal importance to that of the research program. Again, the Minister of Agriculture is in a position of responsibility for it is by his authority that the results of the research program are made available to farm people.

One of the ways that the Department of Agriculture has of passing information along to farmers is through news releases directed to the farm press. A recent one surprised us. The information in it was about the Hon. Harry Hays, Minister of Agriculture. It said, "Few Ministers of Agriculture in Canadian history have come to that office better equipped with personal experience in all the main aspects of this essential primary industry."

This is authoritative; it is a sober, objective evaluation of a fledgling politician. It is made, and signed, by none other than the same Mr. Hays. It is part of an 8-page "news release" from Canada's Minister of Agriculture. It is at once an insult to that office and to the farmers of Canada who look to the Minister for leadership.

We quote further from the above document, so inaccurately entitled a news release. "Following his election to the House of Commons and appointment as Minister of Agriculture, Mr. Hays devoted his energy initially to mastering the intricacies of his vast department and becoming familiar with the ways of the Commons. His policy of thought before action led some of his critics initially to underestimate his capacity to handle his new career."

Initially Mr. Hays' most frequent action was to put his foot in his mouth. Now through issuing propaganda missives so laudatory to himself, he is evidently trying to cram the other foot in too.

A great parliamentarian once observed, "A man does not increase his stature by standing on his dignity." Neither does he increase his standing in the public eye by mistaking propaganda for information.

The Minister of Agriculture holds his high office both by virtue of election to parliament and by appointment to Cabinet. He is in a position of trust and of power. His job is an arduous one demanding of time and talent. If Mr. Hays wishes to devote his energies and those of his department to extolling his own alleged virtues, farmers will have to look elsewhere for leadership. V

## A Setback, Not a Disaster

THE FIRST REACTION of hog producers to the news that atrophic rhinitis has been diagnosed in four of Ontario's certified SPF (Specific Pathogen Free) herds could be one of dismay and despair. Although the government and leading breeders have invested much time and effort in this program of combating certain swine diseases, it has run into trouble. It would appear at first glance that the SPF program has been tried and found wanting. Yet such a view may be entirely premature.

There is little point in underestimating the seriousness of the appearance of rhinitis in these herds. It does represent a grievous blow to the program. The breeders who have been hit, will undoubtedly suffer substantial economic losses.

However, it is well to keep in mind exactly what has happened. The situation is described in some detail elsewhere in this issue. Further investigations since that report was written have resulted in the view that the rhinitis infection was brought into one of the herds either through contact with naturally raised pigs or on someone's clothes. Subsequently, pigs were probably sold out of the first herd and into others and this is probably how the break occurred in the other herds.

There is another fact to keep in mind. When the SPF program was first set up, it was a question of whether or not to include atrophic rhinitis. Many veterinarians believe this disease does not retard rate of growth or maturity of hogs. However, it had been given so much publicity there seemed to be no alternative but to include it. Now, this disease has infected four of the clean herds.

The other disease involved in the SPF program, virus pneumonia, has not been diagnosed

in any of the herds. The control program is working for this one. This fact is gratifying.

In discussing the outbreak, Dr. C. K. Roe, swine specialist at Ontario Veterinary College, points out that with the exception of the present break, good results have been obtained in the herds that are involved in the program—good enough, in fact, to convince him that there is a place for the SPF program and that it is well worthwhile to make every effort to keep it going and even expand it.

In appraising the situation, hogmen should keep in mind that the swine industry is undergoing rapid change. Management practices, breeding programs and disease control programs, which have changed very little over the years, are now being questioned and modified. Connaught Medical Laboratories, for instance, which are involved in the SPF program in Ontario, have now moved into a progressive breeding program. They have announced an agreement with Manitoba Pool Elevators through which they will make available to Manitoba hog producers stock from their Ontario farm. These pigs will be of certified health standard and of known breeding value. This development will undoubtedly have a major impact on swine production in areas concerned. Similar projects might well develop in other areas.

Producers are now demanding reliable breeding stock—stock that they know will do the job for them in producing high quality, healthy pigs. The momentum of development in the swine industry is too great to be seriously set back by the unfortunate break in the SPF program. This industry is on the move and such minor setbacks as this will simply challenge the ingenuity of its leaders. V



Selective herbicides, higher fertility levels, better cultural practices, earlier hybrids and increased mechanization all favor the expansion of corn acreage

[Guide photo



## Corn Prospects Across Canada

ONTARIO HUSKING corn acreage is up to some 650,000 acres and yield prospects are the best in years. The crop is nearing maturity and if current prospects are not dimmed by early killing frosts, then harvest and drying equipment will be running to capacity. Can Ontario's success with the corn crop be emulated across Canada? At its meeting at Fredericton the Canadian Society of Agronomy took a long look at the present and future status of corn.

Dr. Murray Brown, of the Ontario Research Council, whose work led to the development of heat unit classifications, claims that 2,600 heat units are the minimum for present early maturing varieties. "Most of Quebec," says Brown, "is comparable to what we call fringe areas in Ontario. Grain corn acreage is likely to expand in the fringe areas of Ontario, Quebec and Manitoba but it will fluctuate with the weather; silage corn will expand in New Brunswick, Nova Scotia and P.E.I."

Dr. R. I. Brawn, of Macdonald College, took a more specific look at the prospects for Quebec: "Corn has been grown in Quebec since the days of the early settlers but the corn borer reduced its importance. Quebec is searching for feed self-sufficiency, but of the hybrids available today, only the earliest will mature, and then only in a small part of the province. We need new hybrids to make it a safer crop. Even silage corn does not mature to make a quality silage; we want the high energy silage being made in Ontario."

Here Brawn is emphasizing what a lot of farmers are finding out; high energy, quality silage is only possible if the crop has a chance to mature. Salad silage has little feed value.

Dr. S. B. Helgason recalled that 1942 was the most disastrous year for corn in Manitoba and it coin-

cided with the biggest acreage, some 100,000 acres. Says Helgason, "I look forward to expansion in grain and silage corn; selective herbicides, early hybrids, better cultural practices and better harvesting equipment combine to make the corn prospects brighter."

Dr. F. S. Warren, of Nappan, N.S., says flatly, "Grain corn has no place in the Maritimes. We have no room for wrong decisions and a common error is in the choice of hybrid. Emphasis would be better placed on existing crops."

S. H. Pawlewski sees a potential of perhaps 40,000-50,000 acres in

Alberta, but lack of corn equipment and the depredations of blackbirds, especially in the irrigated areas, are inhibiting factors. Moving further west, W. E. P. Davis sees a slow increase in specific areas in British Columbia, "But we couldn't care less whether we grow corn."

Prof. George Jones of OAC gives some clue to where corn ceases to be a competitive crop: "It is our hope to have whole plant silage corn with sufficient energy—all in one pile; it's not good enough to think in terms of silage which requires added grain corn to complete the energy requirements."—P.L. V

# Why you should replace spark plugs now!

Tractor spark plugs used in spring plowing have, in almost every case, begun to misfire. This misfiring usually goes unnoticed, but it costs money in wasted fuel and lost power. Here's what it amounts to...

If you go into harvesting or fall plowing with worn spark plugs on your tractor, your fuel dollar surely won't buy a dollar's worth of performance—it's more like 92 cents' worth! This is what hundreds of farmers found in dynamometer tests across the country. Tractors running on the same plugs longer than 250 hours were wasting 8% of their fuel and losing 7% of their power, on the average. And most of the farmers were really surprised at these losses because they hadn't noticed any rough running or loss of power. Here's the reason...

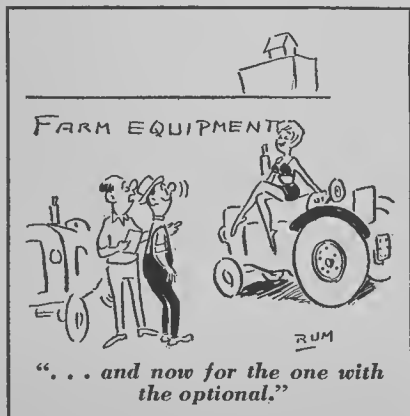
A tractor engine, unlike the engine in a car or truck, works under heavy load most of the time. Under load, spark plug condition becomes critical. As electrodes wear and fouling deposits accumulate on the spark plug's core nose, hidden misfiring develops. This misfiring usually starts after about 250 hours of operation (about six months on the average tractor). And it can actually account for fuel and power losses of up to 30% and more before

misfiring or power loss becomes apparent to the tractor operator.

To avoid this serious problem replace spark plugs regularly in tractor and other power equipment. Start with a set of new Champions *now*. It will cost you less than running on a set of worn plugs this fall! And you can save fuel money on all your farm engines too, by replacing spark plugs regularly. See your Champion Dealer for all your spark plug replacements.



CHAMPION SPARK PLUG COMPANY OF CANADA LIMITED, WINDSOR, ONTARIO



CHAMPIONS—FIRST CHOICE OF TRACTOR MANUFACTURERS

# GUIDE POSTS

UP-TO-DATE  
FARM MARKET  
FORECASTS

## RED CEDAR SHINGLES

### give natural protection to all farm buildings!

*For all your farm buildings – livestock, poultry, swine and storage – British Columbia Red Cedar Shingles protect better, year in, year out.*

#### INSULATE BETTER

In each cubic inch of Red Cedar, millions of air-filled cells insulate against heat and cold – reduce your fuel costs more effectively than any other roofing material.

#### CUT CONDENSATION

Red Cedar's natural porosity actually "breathes out" excess humidity caused by animals. Low moisture condensation helps keep your animals in good physical condition – means better feed storage, too.

#### WEATHERPROOF

Red Cedar Shingles withstand even the most severe weather, and eliminate roof drumming in hail and rain.

#### ADD STRUCTURAL STRENGTH

Lightweight, resilient roofs of Red Cedar Shingles actually strengthen the structure of any farm building.

#### LOW COST

Red Cedar Shingles' built-in long life means years of trouble-free protection. For further economy, choose from three grades of Red Cedar Shingles: one is just right for every farm building roof or wall.



For information about Red Cedar Shingles, and methods of application, send the attached coupon to:

**RED CEDAR SHINGLE AND HANDSPLIT SHAKE BUREAU**  
550 Burrard Street, Vancouver 1, B.C.

Please send me the "Certigrade Handbook of Red Cedar Shingles"

NAME.....

ADDRESS OR R.R.....

CITY OR TOWN.....

PROVINCE.....

**WHEAT SALE PROSPECTS** continue good. Several contracts with Communist countries in addition to normal markets assure a substantial movement. Even so supplies of over a billion bushels for the crop year mean the Wheat Board must continue to press for sales to avoid a buildup in carryover.

**CATTLE POPULATION** continues to grow in Canada with the beef herds accounting for the rise. Beef cow numbers on June 1 were 8 per cent higher than a year earlier. This means beef marketings will continue at a high level for some time.

**REASONABLY STABLE BEEF PRICES** are the outlook for the next several months. U.S. feeders have cut back. Their supplies will be somewhat smaller and, as a result, they offer no threat to Canada. Canadians continue to eat their way through a growing production of high-quality beef.

**CANADIAN FEEDER CATTLE MARKETS** remain a touchy subject. Supplies will be large this fall and the U.S. market is well down. This means feeder cattle must either move into Canadian feedlots at current prices or move down \$2 to \$3 to interest U.S. buyers.

**HOG MARKETINGS** will rise throughout the fall and winter particularly in the West. Prices will probably slide by close to \$2 from summer levels and then level off with surplus pork finding a home in the U.S.

**TURKEY OUTLOOK** is for a fairly stable market. Canadian supplies for Thanksgiving should be adequate with light birds in ample supply. Any shortage of heavy birds can be met by U.S.

**CHICKEN BROILER MARKETS** will be loaded come October when Thanksgiving demand turns to turkey. Better broiler bargains for consumers and somewhat tougher going for broiler producers is in prospect for these late fall months.

**EGG DEFICIENCY PAYMENTS** of 2 cents a dozen or more seem assured despite recent improvement in the egg market. Current price improvement is likely to reach its peak by October as the heavy hatch of spring pullets comes into production. Egg prices should then drop back moderately.

**INCREASED RAPESEED OUTPUT** could reduce domestic prices this fall. However, foreign markets should keep price up.

# News Highlights

Total estimated per capita meat consumption in 1963 was 143.6 pounds compared to 32.6 pounds for poultry. Beef consumption was a record 73.8 pounds, while other figures were veal, 6.6 pounds; mutton and lamb, 4.1 pounds; pork, 50.7 pounds; offals, 4.0 pounds and 4.4 pounds of canned meats.

The number of cattle and calves on farms in Canada at June 1 this year is estimated at 12,817,000 head, a rise of 4.2 per cent from the previous year. Beef cattle and calves accounted for the entire increase.

Canadian wool production last spring was 4 per cent lower than for the previous year.

The Canadian Championship Plowing Contest will be held near Charlottetown, P.E.I., on September 16.

The Chicago Mercantile Exchange will begin futures trading in live beef cattle, dressed carcasses or other beef products late this year or in early 1965.

For the first time in decades, Argentina has become an importer of beef. The beef shortage is expected to last for only another 6 to 8 months in that country.

Hog marketings across Canada are expected to be on the upswing beginning this fall, says Canada Department of Agriculture, with most of the increase coming from the West.

The National Farmers' Union has requested the minister of agriculture to suspend the new regulations regarding moisture testing of Red Spring and Amber Durum wheat. The new regulations reduced the allowable moisture content in dry grades of Red Spring wheat by half of 1 per cent and brought Amber Durum into line with this. The Union stated that if lower moisture standards are required for some export markets, it would be more efficient and less costly to lower the moisture mechanically in terminal facilities and charge the cost to the industry as a whole.

The Royal Agricultural Winter Fair is scheduled for November 13 to 21.

Alberta Farmers' Union reports that the Carnation Company has decided to stop buying milk from about one-quarter of the 570 farmers shipping to its Wetaskiwin plant. The reason given is that the large volume of milk produced began to outrun consumer market requirements. The Farmers' Union is attempting to organize an association of producers shipping to the plant, including the 124 affected by the cutback. This association would try to stabilize the available market through a system of contracts.

Although 10 thousand turkeys out of a flock of 16 thousand near Yorkton, Sask., died recently, veterinarians say that a disease epidemic was not involved. Primary cause of death was malnutrition with second-

ary conditions resulting from the dietary imbalance.

A new synthetic chemical is being used to control the reproductive cycle of hogs for artificial insemination purposes by the United States Department of Agriculture Experimental Farm at Beltsville.

World exports of beef and veal continued to rise during 1963, being 10 per cent greater than in the

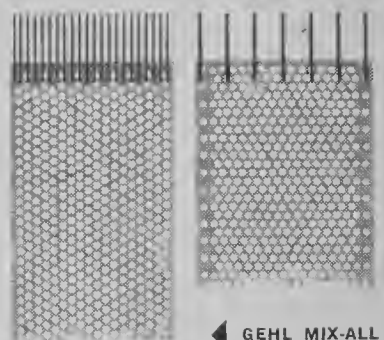
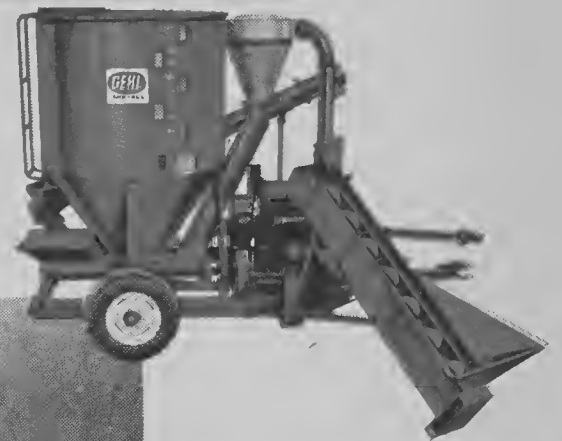
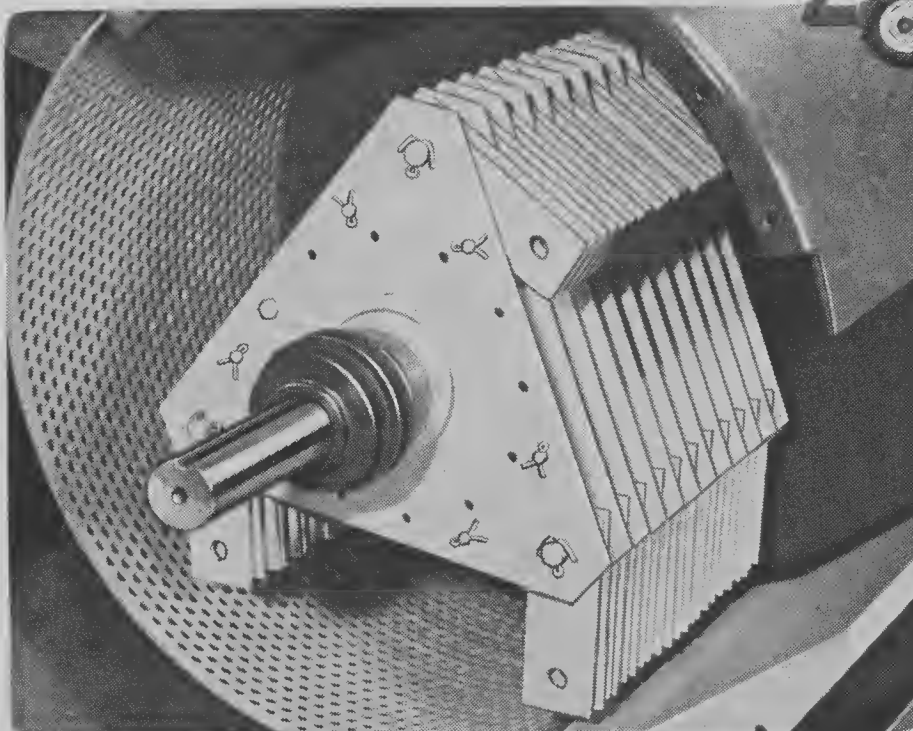
previous year and setting a new record level.

Acting on the recommendation of House of Commons Special Committee on Food and Drugs, Agriculture Minister Harry Hays has set up a Federal Interdepartmental Committee on Pesticides to ensure that the pesticide problem receives continuing attention. One job of the committee will be to consider the recom-

mendation of the Food and Drugs Committee which involve research co-ordination and expansion, changes in legislation controlling pesticide use, and new labeling legislation and other action designed to reduce the hazards of pesticides.

At an Ottawa press conference, Russia's Minister of Agriculture said that in his country greater use is being made of fertilizers and irri-

## Gehl's 66 Thin Hammers CUT...NOT POUND for a uniform ingredient mix



GEHL MIX-ALL

Here's why the Mix-All grinds more uniformly than mills with fewer, wider hammers: Sixty-six thin, reversible, alloy-steel hammers, cut (not pound) materials. Drawing, above left, shows how Gehl puts more closely spaced cutting edges in the Mix-All's grinding chamber than does a competitive mill. Result: more uniform grinding; less power required with a Mix-All.

**Gehl Mix-All delivers "professional quality" rations** right on your farm. Whether your livestock or poultry requires fine-ground or coarse-ground rations, Gehl's uniform grinding permits milled ingredients to mix uniformly and completely with supplements to avoid "selective eating."

The Gehl hammermill is patterned after much larger commercial mills. It features 66 extra-thin hammers that *cut* materials uniformly . . . almost like knives. (Wider, blunt hammers often pound out excess powder-like materials.)

A big 507 sq. in. grinding surface helps eliminate "milling around," which robs grinding power and creates uneven particle sizes. The Mix-All's semi-suction fan helps draw materials through the screen quickly to reduce power requirements, especially when grinding with small-mesh screens.

All milled materials then pass through the feed aerator and are cooled

to prevent caking and to preserve feeding value.

At the 2-ton hopper, milled materials thoroughly and uniformly mix with supplements and additives. (Laboratory tests have proved Gehl's uniform mixing ability.) You can unload the finished ration directly into self feeders. Or, empty the entire batch into your bulk bin in as little as 5 minutes!

Another important Mix-All feature: the variable-speed, swinging auger feeder. Select from hundreds of speeds to pace your loading to match the type and condition of grains or ear corn. Adjust to the loading speed that gets the most operating efficiency from your tractor (check tachometer).

Rugged Mix-All construction assures years of this uniform feedmaking. Ask any of the more than 15,000 owners who helped make Gehl the feedmaking leader in both sales and experience. Then . . . join them. See your Gehl dealer soon.

If your dealer isn't handling Gehl, have him contact one of these distributors:

**FALCON EQUIPMENT CO., LTD.**,  
299 Danforth Road, Toronto, Ont.  
**O. N. JAMIESON & SON LTD.**,  
791-3 Erin St., Winnipeg, Manitoba  
**QUE-MAR EQUIPMENT CO.**,  
124 Ave. Labrosse, Pointe Claire, Que.  
**GRAIN BELT FARM EQUIPMENT LTD.**,  
1920 First Avenue, Regina, Saskatchewan  
**NORTHWEST FARM EQUIPMENT LTD.**,  
Corner 7th Ave. & 6th St., East Calgary, Alberta

**GEHL**

105 YEARS  
OF SERVICE



FREE 16-page booklet describes "Farm Feed Processing with Portable Grinder-Mixers." Written by Dale O. Hull, Professor of Ag. Engineering and Extension Ag. Engineer at Iowa State University. He gives results of an extensive on-the-farm feedmaking test plus other valuable information. For your free copy, mail the coupon.

**GEHL BROS. MANUFACTURING CO.**  
Dept. MW-79-57, West Bend, Wisconsin  
Please send the "Farm Feed Processing" booklet and more information on the Gehl Mix-All. ☐ I am a student

Name \_\_\_\_\_  
Route \_\_\_\_\_ City \_\_\_\_\_  
Province \_\_\_\_\_



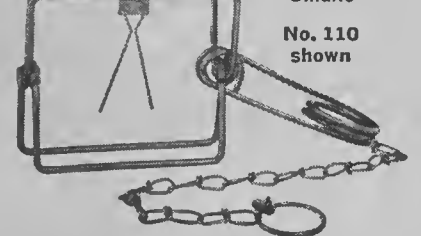


How would you like a record catch this season? Then set Victor Conibears ... the traps that catch and kill quickly and humanely. You'll get top dollar for every fur because Conibear's "body-gripping action" eliminates wring-off and pelt damage.

Conibears are lightweight and compact. They set safely anywhere. Set No. 110 for muskrat, mink, opossum, skunk and similar size fur-bearers; No. 120 for mink; No. 330 for beaver and otter.

Don't you miss out on the money and sport this season. Get Victor Conibear traps at your dealer's now. He also has a complete line of Victor, Oneida and Newhouse leg-holding traps.

**Animal Trap Company of America**  
Niagara Falls,  
Ontario



## Victor Conibear body-gripping traps

What's New? Check that section in this magazine for new ideas that can help you farm better.

**Plastic Grain Storage Cover**  
20 x 20 \$9.75; any size 23¢ per sq. ft.  
**SPEERS PETROCHEMICALS LIMITED**  
1462 Erin St., Winnipeg 3, Manitoba

## News Highlights

gation. By 1970 the irrigated acreage is expected to be double what it is today.

Speaking at the annual meeting of the American Institute of Co-operation, President J. K. Stern said, "In order to match muscle in the marketplace, our co-operatives must co-ordinate, consolidate and merge at a much bolder pace than is presently being done."

A new machine named IRMA designed in England, analyzes the constituents of a milk sample in less than 1 minute. A sample of milk put into it is homogenized, analyzed for fat, protein, lactose and solids-not-fat, and in less than 1 minute the amounts of each constituent are flashed on a meter. Although the machine costs \$12,000, it has been demonstrated at Guelph and it can analyze a milk sample at a cost of 7 to 10 cents.

The Saskatchewan Department of Agriculture has published three new booklets on swine, one dealing with manure disposal, another on barn ventilating and heating, and another on finishing barns.

Poland has purchased another 7.4 million bushels of wheat under its Long Term Agreement with Canada. Another sale of 1.8 million bushels goes to Bulgaria.

Overseas demand for Ontario White Winter Wheat and White Beans continues to be good, according to the Ontario Department of Agriculture.

Meat powder made entirely from meat is being used successfully as a food supplement for Africans.

Feed accounts for two-thirds of the cost of producing a hog. This is what Ohio State University economists discovered in a study of 67 hog farms. Other costs were labor, 11 per cent; tractor, buildings, equipment and fences, 10 per cent;

veterinary fees and medicine, 4 per cent; and 9 per cent for miscellaneous items.

Loss claims of one-third of a million dollars are expected by the Saskatchewan Crop Insurance Board on crops insured under the 1964 program. Improved crop conditions reduced prospective claims to one-third of that anticipated a month previously.

Canada's National Safety League has established a Farm Safety Division.

The Saskatchewan Government has transferred its seed cleaning in Moose Jaw to the Saskatchewan Wheat Pool.

Two major ARDA flood control projects in the Interlake region of Manitoba have been announced. Their purpose is to reduce flooding of haylands surrounding the lakes and thus to improve the income of about 75 farmers.

Municipal officials from 13 towns, villages and rural municipalities in south-central Manitoba have banded together to form Western Canada's first regional development corporation. Among the projects likely to be studied by the corporation are ones to increase production of special crops like navy beans, field peas and cucumbers as well as the potential for increased cattle production in the western fringe of the area. Also likely, is a study of the potential for industrial expansion by attracting food processing plants.

Manitoba's Conference of Agricultural Organizations has declared its opposition to a retail sales tax unless there are firm guarantees that it is in fact a substitution and not simply an addition to the local tax burden. The Conference represents 13 Manitoba farm organizations.

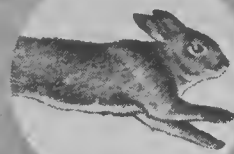
With total sales of 1.249 billion dollars in 1961, the slaughtering and meat packing industry ranked third highest among 62 manufacturing industries reported in taxation statistics. Only pulp and paper mills and the petroleum industry exceeded this.

### CALLS FOR MARKET EXPANSION

Since the productive capacity of Canada's dairy farms is greater than this country's market can absorb, it would be wise to expand foreign markets for dairy products. This is the view of former Minister of Agriculture, Hon. Alvin Hamilton. Speaking in the House, he made the following specific proposals:

**Suggestion One:** That the dairy industry in Canada accept the proposition that there is a possibility for expansion in the export market for our dairy products, and that while there are great difficulties involved, these can be overcome if we set our minds to it.

**Suggestion Two:** That agri-business in North America join forces in a combined program of development of new markets for farm produce, on the grounds that many of



**ON THE RUN,  
ON THE FLY**



...you're ready  
for either with  
your Savage 24

With the famous over-and-under Savage 24, you just flip the handy barrel selector conveniently located on the hammer for instant choice of rifle or shotgun. Upper barrel chambered for .22 long rifle or for .22 magnum; lower for 20 or .410 gauge shot shells. Often called the world's most useful gun, it also features a new, handy side lever for faster breaking. The Savage 24 is prized by sportsmen for small game, pest control and just plain fun. See it soon. Sold only by sporting arms dealers. Only \$57.60.

And the new 24-DL is a deluxe model in the same calibers and gauges at \$73.90.

**FREE** 40-page catalog of Savage firearms and accessories. Write SAVAGE ARMS, WESTFIELD 181, MASS. Suggested prices, subject to change.

**model 24**

**Savage**

You can buy with confidence from  
Country Guide advertisers.

**BACKACHE**  
Due to faulty  
elimination can be relieved  
overnight with the help of

**K&L PILLS**



the firms involved operate in both Canada and the United States and that they should accept some responsibility in helping to meet this situation.

**Suggestion Three:** That government research into products suitable for handling, shipping and storing in warm countries be accelerated, and that the results of such research be turned over to agri-business for production and market development purposes.

**Suggestion Four:** That present efforts of the governments of Canada and the United States to achieve international commodity agreements be given increased impetus by arranging a meeting of ministers of the dairy surplus countries that would be planned to help clear away the difficulties that are holding up present negotiations under the United Nations.

**Suggestion Five:** That agri-business examine the multilateral trading techniques of the big international grain selling organizations to decide whether these companies could handle dairy products, or that similar types of organizations be set up for dairy products.

#### CFA DECLARES POLICY

At its mid-year board meeting, the Canadian Federation of Agriculture hammered out policy and views on a number of topics including the following:

**Feed Grain.** Some aspects of the new freight assistance regulations as announced by the government are being strongly questioned by CFA members, and the CFA is asking for consultation with Mr. Sauve, the minister concerned. The complicated new freight assistance policy provides for trucks to compete for the movement of grain inland from eastern ports. The effect, reports the CFA, will be to increase assistance in B.C.; lower it in western Ontario; leave it unchanged in eastern Ontario; lower it in some parts and raise it in others of Quebec; and lower it in the Maritimes.

**Farm Credit.** The national office of CFA is to give special priority to a study of farm credit needs this fall.

**Health Services.** The CFA endorsed the basic proposals of the Royal Commission on Health Services for a comprehensive, universal health services program, government sponsored and providing equitable coverage for all Canadians regardless of their financial means.

**ARDA.** For the present at least ARDA should remain fundamentally an agriculturally oriented program without narrowing the present scope for rural development activity. Federal participation in it should allow ARDA to provide a role in policy development in collaboration with the provinces. A national advisory committee should be established.

**International Trade.** Because of the major importance of the current trade negotiations under GATT known as the "Kennedy Round," the CFA has established a special committee which is ready to undertake any necessary discussions with gov-

ernment on policy developments and proposals.

**Hog Improvement.** Plans were laid to form a co-ordinating committee to follow up on the Canadian Hog Improvement Conference, and in particular to co-ordinate plans and action looking to the development of a Canadian Hog Producers Advisory Board.

**Broadcasting Policy.** It approved a submission to the Commission of Inquiry on Broadcasting which restates its long-standing policy that the air waves should be developed in the public interest.

**Pension Plans.** It reaffirmed its conviction that government pension plans now under consideration should provide for compulsory coverage for all farmers and other self-employed groups.

#### NEW FEED ADDITIVE

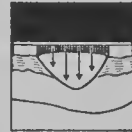
A new feed additive for swine which has increased pig growth by 87 per cent, improved feed efficiency by 15 per cent, and greatly reduced disease loss, has been licensed for sale in Canada. The new product, called Aureo S.P-250 has enabled pigs to maintain their growth rate and feed efficiency even while infected with atrophic rhinitis. It also aided in the prevention of bacterial enteritis.

In reporting on the introduction of the new product, Dr. H. D. Simpson of Cyanamid of Canada Limited, which manufactures it, said that hogs fed it from time of weaning at 3 weeks, for a period of 9 weeks, weighed 16 lb. more than hogs in

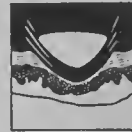
(Please turn to page 52)

## Remove corns in 3 days!

Blue Jay corn plasters with exclusive Phenylum medication stimulate the growth of new cell tissue that pushes the corn up and out. Stubborn, long-established corns may require a second application.



**FIRST DAY**—Blue Jay relieves pressure, while Phenylum penetrates to base of corn.



**THIRD DAY**—New cell tissue loosens corn so it can be lifted out easily.

**BLUE JAY**

THE KENDALL, CH. CANADA LTD.  
BAUER & BLACK Division

## Let Air Canada fly you to Britain and Europe at the lowest jet fares ever!

Your holidays in Europe? Why not! In these days of jet travel and low, low fares, holidaying abroad is becoming more and more popular with farm families. In a matter of relaxed hours, your giant Air Canada jets speeds you to the famous sights of Britain and Europe. And Air Canada can send you all the travel information you want *before* you go (see coupon below). Look at these low fares, then for full details, see your travel agent or nearest office of Air Canada now!

<b>TORONTO — GLASGOW</b>	<b>\$310.90</b>
<b>WINNIPEG — LONDON</b>	<b>\$415.50</b>
<b>CALGARY EDMONTON</b> }	<b>PARIS \$546.90</b>

Sample 14 to 21-Day  
Economy Excursion return fares



SEND THIS COUPON TODAY FOR TRAVEL FACTS  
to: AIR CANADA, P.O. Box # 598, Montreal 3, Que.

Yes, I want to know more about Europe; please send me:

☐ Free 16-page illustrated brochure ☐ Complete 'Planatrip' Kit (enclose \$2)

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

R.R. \_\_\_\_\_

CITY/TOWN \_\_\_\_\_

PROV. \_\_\_\_\_

CG-1

FLY CANADIAN-FLY

**AIR CANADA**



## Pour or Spray those lice away (grubs, too!)

Here is an entirely new concept in livestock insect control. Simply pour or spray a solution of Ruelene\* 25E and water on cattle to kill lice, grubs and horn flies. It's as easy as that!

For farmers who prefer to spray, Ruelene 25E is the most effective louse and warble grub control yet devised. For those to whom treatment of lice and warble grubs was a costly and inconvenient procedure, this new easy pour-on method will appeal. Just pour Ruelene 25E diluted in water, from a cup or ladle, along the back line of the animal, beginning just behind the shoulders. Follow the instructions

on the label carefully. One treatment is all you need! Ruelene 25E prevents damage and discomfort to the animals . . . reduces trim and hide losses, and devaluation of the carcass. Tests prove that pest-free animals can gain up to one-half pound more per day than infested cattle. Yet it costs only pennies per hundred pounds of bodyweight to control lice and grubs with Ruelene 25E. See your regular farm chemicals supplier, Dow Chemical of Canada, Limited. Vancouver • Calgary • Winnipeg Sarnia • Toronto • Montreal • Saint John.


\*REGISTERED TRADEMARK

# What about Machinery Co-ops?

**Over the past 20 years, less than one such co-operative has been formed a year in the one province, Saskatchewan. This may change as machinery becomes more specialized**

by **GARY CARLSON and NORM BRAY**  
Saskatchewan Dep't of Agriculture

**PRESSURED BY** rising machinery and farm mechanization costs, more prairie farmers may gradually turn to machinery co-operatives or less formal sharing arrangements in an attempt to lower production costs.

It all depends on how much economic pressure is needed to break down the "pride of ownership" principle, states Jack Drew, farm management specialist, Saskatchewan Department of Agriculture. "The objective of many farmers is to own everything, to be independent and not go into debt." This attitude may limit a farmer's ability to mechanize to advantage, explains Drew.

A machinery co-operative can result in lower ownership and operating costs for each member. Such is the case with the co-operative at Coronach, Sask., which was formed 10 years ago in an attempt to lower machinery costs and increase labor efficiency for four members. A full line of tillage and harvesting machinery was pooled at an evaluated price totaling \$23,000 in loan capital. In 1963, this co-op's machinery investment was \$5.50 per acre. Expenditures were \$5.60 per acre, including \$1.90 in wages. This is

lower than each member could expect farming alone, states Drew.

The farms have similar soil type and grow mainly wheat. Total cultivated acreage is 4,500. All the grain harvested is pooled, with revenue to each member based on the share of land contributed. "If we didn't pool the crop, the probability of our co-operating successfully would be slim," states Harold Sigglekow, who is also the municipal secretary at Coronach and looks after the bookkeeping for the co-operative.

The inequalities in loan capital are overcome by interest payments. The interest is included as an operating expense to the co-operative. Whether or not a member is entitled to interest depends on his share capital in relation to the proportion of land he has contributed. The expenses are also shared according to the proportion of land contributed. An hourly wage scale has been set up and a member gets paid on the share of work contributed. All wages are totaled at the end of the year and included in the total expenses.

Original members of this co-operative were the Nelson brothers, Henry, George and Nels, along with

## Basic Organization of a Machinery Co-operative

- ★ An investment quota for each member per cultivated acre to purchase equipment.
- ★ A custom charge per hour is charged each member to cover operating expenses, depreciation and labor.
- ★ A board of directors looks after management. One of the members is appointed manager and is responsible for repair, operation and allocation of machinery.
- ★ Grain farms may wish to pool grain production as well as machinery costs.

## Some Fundamentals of Machinery Co-operatives

- ★ Can include specialized equipment such as grain dryers, sprayers, or full line of tillage and harvesting equipment.
- ★ Should reduce machinery investment and operating costs.
- ★ To be successful, members must be broad-minded and willing to "give and take." They must spend part of their time together making plans.
- ★ Good bookkeeping is essential.
- ★ The membership of a machinery co-operative should not be large.
- ★ Machinery co-operatives provide for more efficient use of labor—members have more time for other activities. In many cases better farming practices are carried out.

Mr. Sigglekow. They farmed together prior to setting up the co-op, but they wanted a formal setup and an accurate set of financial records. The Nelsons figure that machinery co-operatives can provide efficiencies on small farms that need to make more intensive use of new, modern equipment. They agree that machinery co-operatives become less valuable when each member expands his land acreage.

Henry Nelson likes the machinery co-operative because it leads to specialization of labor—each man can work on the job that best suits him. Nels Nelson says more small farmers should be in a machinery co-operative. "It's pretty inefficient when you're all alone on the farm. This pride of ownership in machinery can be costly." Mr. Sigglekow points out that the co-operative has been able to expand its machinery inventory and own modern equipment.

There are several other machinery co-ops in the province too. For instance, the Keywest Co-op at Ogema consists of 15 members. It includes very specialized farm equipment — a high pressure tree sprayer, portable seed cleaning unit and manure spreader. These were purchased from loan capital contributed equally by the members. Fees are charged for machine use.

Membership in this co-op is largely confined to small mixed farmers and in this respect it has led to more intensive use of specialized machines. The timing of the use of equipment is arranged through the secretary-manager, Mr. Grainger, who says that members should be using the machines more. Right now the co-operative is showing a loss, mainly through depreciation on machinery and interest paid out on loan capital. It isn't sensible for the members to pay higher service fees either, he adds.

A group of young grain farmers at Aylesbury (these men grew up together) are presently sharing the use of a post hole auger, post driver

and a large manure spreader. The group will not be organizing as a formal machinery co-operative, but intend to set rates for the use of their machines. A land leveler and a rock picker may also be purchased later.

With this machinery, timeliness of operation is not critical—it is easy to accommodate each member.

There are six farmers in the machinery co-operative at Keeler. When they organized, most of their machinery was sold, some of it to the machinery co-operative. Two full sets of machinery were purchased. Each man owns his land, but crops are pooled. If a member has 15 per cent of the land, he is assessed 15 per cent of the cost and is entitled to 15 per cent of the returns. Each member gets credited with time spent at work. Operating costs have been cut significantly, says Art Cedargren, vice-president.

Each month, a different member co-ordinates the work. As well, each member is allowed an annual holiday. The group is made up of young farmers who have grown up together, and get along well. They live within a few miles of each other.

Both the Aylesbury and Keeler groups intend to set aside a depreciation fund to replace worn-out machinery.

One of the major drawbacks to many machinery sharing arrangements is to get agreement on seeding and harvesting dates on the various members' farms.

Jack Drew points out that there is machinery sharing among larger farmers. If the principle works there, he feels it can be of much greater importance to the smaller farm. Sharing machinery investment and operating costs can work and is working, he says. "It isn't always necessary to organize under a formal machinery co-operative, but it is important to recognize the efficiencies to be gained from co-operative ownership and machinery share arrangements."



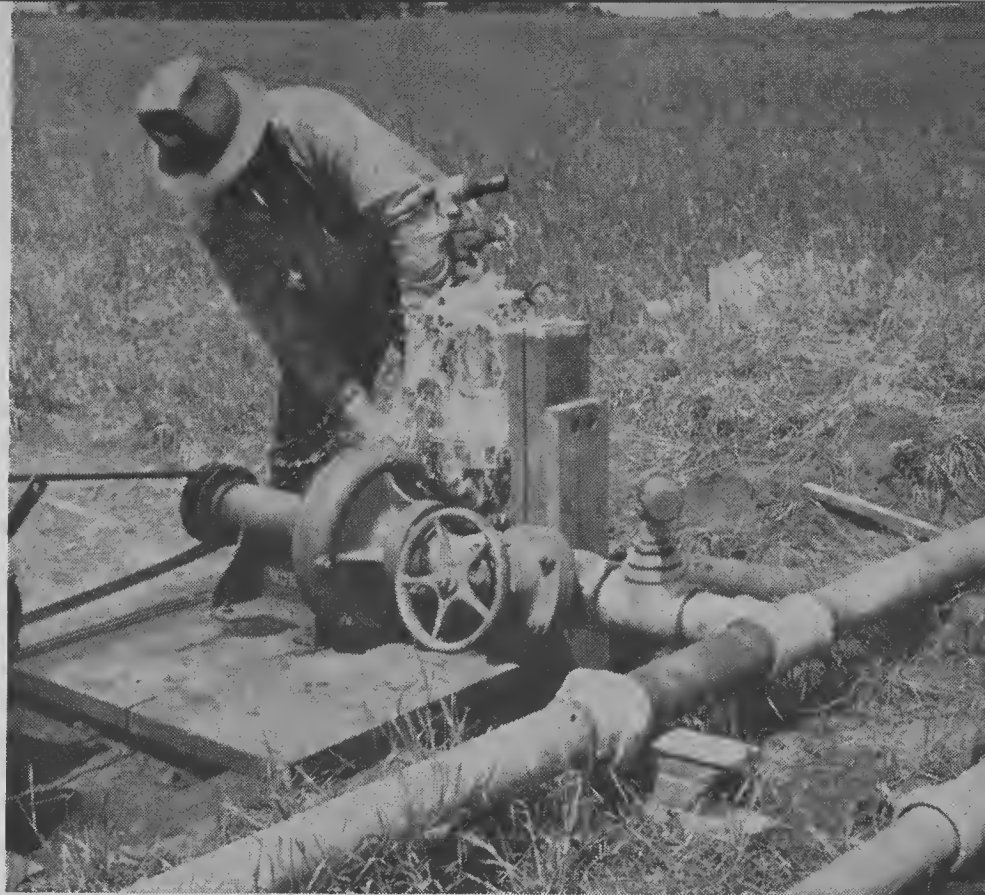
Now that there is a farm machine for every job, machinery co-ops may be able to help small farmers get economical use of the ones they need



# Groundwater

—it could be your  
most valuable resource

by LEO QUIGLEY



Bill Christie primes the centrifugal pump that irrigates his timothy from a well-point system

NINETY ACRES OF SAND and 40 beef cows are hardly the makings of a comfortable living. Charlie Line of Napinka, Man., had come to realize this fact in past years. Crops of 10 bushels to the acre had proved that you can't grow grain profitably on a farm that has an open sand pit in the middle of it.

Then, a survey team from the Manitoba Department of Agriculture, probing Charlie's land, found an abundance of water in the sand beneath it. This water had potential for irrigation and Charlie more than welcomed the government's offer to build a dugout. It was scooped out to reach below the water table, and as a result, it keeps filling in as it is pumped out. It yields 20,000 gal. of good water per hour. Last year, Charlie planted 6 acres of potatoes and irrigated

them. These potatoes netted him \$307 per acre. This year he has expanded to 20 acres of potatoes. He also has two Dept. of Agriculture test plots, one consisting of 8 acres of alfalfa and the other, 6 acres of corn. The potatoes look good again this year. This ever-filling dugout has become the Horn of Plenty on the Line farm.

Charlie Line's dugout is only one of several that comprise a series of tests being carried out by the provincial government. Dick Filteau, the agricultural representative for Charlie's district, estimates that 40,000 square miles of land in western Manitoba may have a potential for irrigation. Similar investigations are being carried out in other provinces. In Saskatchewan the investigations have been in the Kisbey Flats and Arm River Basin areas.

Dugouts, such as the one on the Line farm, are a temporary means of supplying water, because water seeping into the dugout brings with it fine silt. After a period of time a dugout such as this will have to be dredged at considerable expense. A more satisfactory and permanent means of obtaining this underground water is the sand jet (Jetting For Farm Water, Nov. issue, Country Guide).

Bill Christie of Cypress River, Man., has used this principle in developing his underground water supply. He discovered his land's water potential when he drilled a well to water his cattle. An unlimited supply of good water gushed up and Bill decided to develop this resource to irrigate his registered seed crops. He went ahead on his own and obtained as much information as he could on the subject. Then he sent for a sand jet and developed several wells on his farm. When each of these wells supplied ample water, he bought more jets.

Today Bill Christie estimates that he has invested \$10,000 in his irrigation system. But the sight of his sprinklers watering 100 acres of the finest certified timothy seed in Manitoba is evidence that the expense was justified. This year Bill seeded the only Drummond timothy seed in Canada, a 79-lb. lot. The fact that Macdonald College chose him to raise this breed seed is further evidence that his farming program is a sound one.

Christie's jets are arranged in groups called a well-point system. A jet is another version of the sand point, but without a point. It is designed to force water through a nozzle and "jet" a hole in the sand. Bill uses 12 such jets to a system, arranging them in an "H" pattern. Other patterns such as the line, angle, or the efficient circular system can be used.



Irrigated corn gets its water from far beneath the soil's surface on the farm of Charlie Line

The jets operate at a depth of 30 ft. A centrifugal pump which is set at the "bar" of the H pattern lifts the water. Bill used 3-inch aluminum pipe for the mains to his sprinklers and 2-inch for the leads. All in all he has 4 systems with 49 jets to irrigate 100 acres of timothy.

These well-point systems are flexible in design. Bill uses a combine engine for power, for reasons of economy. A smaller portable engine could be used and moved from one system to another as watering progresses. Electric motors can also be



This is one well in a system of 12 laid out in an "H" pattern and pumped for irrigating water



This number 30 sprinkler sprays groundwater to irrigate Christie's field of certified timothy

**BEFORE DEVELOPING GROUNDWATER**, you will have to answer these questions. Some will require the assistance of specialists from the provincial government.

**Availability, quality, and depth of water:**

- Is a plentiful supply of water available?
- Is it of the right quality to permit production of the desired crops?
- Is water available at a depth that will permit economical pumping?

**Trend of the water table:**

- Is the water table stable?
- Is it rising?
- Is it declining?
- Is development in the area likely to bring about withdrawals of water in excess of the natural recharge?

**Legal or natural protection:**

- Do the statutes or court decisions provide legal or administrative protection in your area against depletion of water supplies?
- Is the area protected against overexpansion and depletion by "natural" controls?

**Cost of operation:**

- Will the prospective production under irrigation bring enough returns to pay the increased costs of irrigation farming?

**Land requirements:**

- Is the land physically suitable for irrigation from the standpoint of contour, productivity, water-holding ability?
- Is the land suitable for the types of crops to be produced?

used to drive the pumps. The choice of one or the other is dependent on the relative costs involved.

As the water is pumped from any well, the water table in the soil is pulled down around it. This soil area is called "the area of influence" of the well and the water-bearing sand around the well is called "the aquifer." The area of influence is effected by the permeability and thickness of the aquifer, the rate and manner of pumping and the way in which the water is replenished. It is usually best to set jets 25 ft. to 50 ft. apart to prevent "overlapping" in the areas of influence. When you pump these wells you are in fact "dewatering" the soil around them.

There are possible dangers to using groundwater. A sufficient number of well-point systems, placed without thought as to water replenishment, could permanently damage a district's water table. This problem of dewatering is one which concerns the Manitoba Department of

Agriculture and it is being investigated. The water table in a district is usually recharged when the wells are not being used. This recharging can be aided if terraced basins are built to catch and hold spring flood waters, allowing them to infiltrate back into the soil. Or, deep wells can be built to catch the water and deposit it in the underground strata. However, the water table is not always lowered when the pumps are on; in some areas it will stay the same or even rise.

#### DEWATERING

Although dewatering can present a problem in some cases, it can also be put to valuable use in others. A high water table usually means extreme soil salinity. If the water table can be lowered, the salts will be washed deeper into the soil and the land will become productive. For example, underground drainage is carried out to control salinity in California where lush crops thrive in

the middle of a desert. Wells have also been used to dewater the ground in the Indus Valley of India, which suffered from extreme salinity for centuries. As a result, the valley is prospering. There are many saline areas in Canada that could be made productive through the use of a series of well-point systems.

#### RECLAMATION

Reclaimed land can be very profitable land. Maurice Gonty of Bellevue, Man., has a piece of ground which was dewatered 5 years ago when the PFRA diverted Pipestone Creek. Maurice has been growing big crops of barley on this land every year since. Although the growth is succulent and quality low, quantity makes up for it. Maurice wouldn't sell this land today "except at a ridiculous price," although it was comparatively worthless before. Even now, soil tests show it to be too saline for cereal crops.

Canada's groundwater is one of its most valuable natural resources.



Charlie Line has twenty acres of potatoes that are irrigated from an underground water supply

Developing and controlling this water will prove to be a boon to farmers in many areas. It could be that you have watched crops wither and die while the necessary life-giving water has lain just beneath your feet. V

Ernie Buglass, forage crop specialist at Indian Head Experimental Farm, stands amid scores of test plots trying varieties of forage crops under saline conditions. In the rear is a permanent slough near the farm buildings which lies in the middle of the saline area



[Sask. Dept. of Agriculture photo]

## How to Make Saline Soils Productive

*Grow tolerant forage plants like tall wheatgrass, and apply fertilizer or manure. Dewatering can help, too*

by NORM BRAY

Sask. Dept. of Agriculture

THE ANSWER TO the saline soil problem is soil management. This is what research workers at Indian Head Experimental Farm are finding.

For instance, grass crops can be seeded on alkaline soils. Heavier applications of fertilizer and manure will increase yields. So will applications of mulch and soil conditioners. However, Mother Nature herself remains the controlling factor in fertility of saline soils. The only permanent relief will come from a change in soil moisture. Alkali, or more technically, the saline (salty) soils are a big problem. They occupy 2½ to 3 million of the 33 million acres of farm land in the settled part of Saskatchewan.

Although saline soil usually affects only a few acres on most farms, it probably represents in total the greatest soil problem in Saskatchewan. It has become more troublesome in recent years with greater moisture evaporation leaving more salt on the soil surface.

Dave Wortman of the Coronach district of Saskatchewan, who grows wheat on his 1,400-acre farm, is one who is demonstrating that saline

soils can be productive. Only a few acres of his farm have a salt problem. At the recommendation of Indian Head Experimental Station researchers, he seeded 10 acres to tall wheatgrass and 10 acres to slender wheatgrass mixed with sweet clover using a press drill.

Hay from the 20 acres provided half of last winter's hay ration for Mr. Wortman's 50 beef cattle. "It's pretty coarse stuff and you've got to

cut it early," he states. But it yielded over 2 tons per acre and he hopes to grass the other 15 or 20 saline acres on his farm.

Forage crop specialist Ernie Buglass of the Indian Head Farm feels the best way to use a saline field is for grass crops. "Put it down to grass and let that take care of it," he says.

Commercial fertilizer and manure applications help, but their effectiveness is reduced with increasing salinity. As a result, treatment could be expensive for the farmer with a severe salt problem. Fertilizer gives best response in dry years. This may mean that a high salt content prevents the plant getting the fertilizer.

Assuming a salt problem is here to stay, Buglass is testing all the common grass, legume and cereal crops as well as several imported species for saline tolerance. These include a sea lime grass, related to Russian wild ryegrass, but possessing a very coarse reedy leaf. He is interested in both the salt tolerance and the palatability and nutritive qualities of the grass.

Eight years ago, he seeded down a saline slough at Indian Head to a shotgun mixture of grasses. Today various grasses dominate sections of the plot. Reed canary grass predominates in the area most subject to flooding, being both reasonably salt tolerant and the most flood tolerant grass. In the more salty areas, tall

wheatgrass predominates and Buglass rates it first in salinity tolerance. It is followed by slender wheatgrass, Russian wild ryegrass, fescue and brome. He recommends tall wheatgrass, not only for its salt tolerance, but because it is longer lived than the second most tolerant grass — slender wheatgrass.

Tolerance to salt varies with the life stage of the plant. Although alfalfa seedlings have difficulty surviving, once the plant is established it is quite saline tolerant. Adequate moisture at the planting stage is helpful in saline soils, since this equalizes the tendency of the salt to retain moisture. Because of this Buglass recommends planting shortly after a heavy rain.

Varieties of alfalfa have distinctly different saline tolerances. Rambler, Beaver and Ladak rank best for tolerance above Viking and Vernal.

Among cereal crops, barley has the most salt tolerance. Wheat is somewhat more tolerant than oats. Workers at Indian Head are also testing trees for tolerance to salt conditions.

Here are the results of some trials at Indian Head. Applications of 100 pounds of phosphate fertilizer (P205) and also 100 pounds phosphate along with 100 pounds of nitrogen fertilizer per acre boosted wheat yields significantly. Thirty tons per acre of manure increased (Please turn to page 53)



This piece of alkaline swampland was dewatered when Pipestone Creek was diverted and . . .

Now produces tremendous crops of barley on the farm of Maurice Gonty, north of Bellevue, Man.

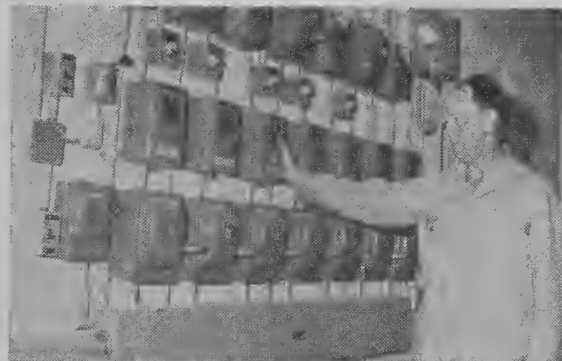
[Guide photos]







P. Hoondert feeds a sow in a farrowing stall, just as though he was gasing up an engine



Bo Henderson selects his feeding requirements; each box on the control panel is plainly marked



Fred Taylor weighs the dry feed which is then dumped into blender to be mixed with water



Ribbon feeders allow dry sows in adjoining pens to feed individually and also utilize space well

# Liquid Feed for Swine

**Two men can prepare the feed mixture  
and feed 1,000 pigs in 90 minutes**

**by PETER LEWINGTON**  
Field Editor

WHEN IT'S SWINE FEEDING TIME at the Bolton, Ont., farm of Connaught Laboratories, herdsman just turn on a tap. This is a new and highly sophisticated form of slop feeding, that traditional method of feeding hogs which lost popularity as mechanization moved into farm buildings.

Dr. Tom Johnston, manager of the huge Bolton farm, says: "With the introduction of liquid feeding I believe that we have reached the highest degree of automation which is desirable for a breeding herd."

The liquid feeding system is an unusual aspect of an unusual farm; Connaught Medical Research Laboratories is a subsidiary of the University of Toronto. It is a commercial venture concerned with the development and manufacture of serums and other weapons used in the fight against everything from diabetes in humans to colds in baby chicks. Several years ago an SPF swine herd was established with the object of having swine of a known health status, and that were free of external and internal parasites; these swine proved of value in testing the efficiency of certain antibiotics. Latterly the emphasis has been on the development of hybrid SPF stock to repopulate farms across Canada and perhaps ultimately overseas too.

All this is a long way from the slop pail still in use on some farms. How does liquid feeding work and just what are the benefits and problems?

Liquid feeding, long popular in several European countries, gained a foothold in North America only last year. The Connaught installation is the first and only one to date in Canada. As it has only been in operation for 3 months, this report is an interim one on the project.

Dr. Johnston cites these reasons for liquid feeding:

- Controlled environment buildings are expensive. Liquid feeding takes up less room than other systems and brood sows can be kept on 15 square feet of floor area.
- Feed wastage is reduced.

• Pigs appear to drink at similar rates and eat at very different speeds. Liquid feeding tends to promote even feed intake.

• It is semi-automatic; all the hogs can be watched by the operator twice daily at feeding times.

• Restricted feeding can be practiced without dumping feed onto the floor.

• Labor requirements are reduced.

• The design of the feed troughs gives each hog an individual space, thereby reducing the problem of bossy sows.

• No water bowls are required.

Liquid feeding is another step in automation and it only became feasible with the introduction of environment-controlled buildings with good insulation and ventilation. Here is how it works.

The nerve center of the swine barn is the feed room. A complex electrical control panel has all switches clearly labeled. The bulk feed is stored outside the building and can be augered through the roof of the feed room. All feeds are finely ground, standard rations and include dry sow, nursing sow, pre-starter, starter and grower rations. Well-water is weighed into one of the three blenders and for every 3 pounds of water 1 pound of feed is dumped. The mixture of feed and water is agitated for 20 minutes to achieve suspension.

Directly after one feeding the water is placed in the blender ready for the next feed. This is used for the youngest pigs as it is warmer than water which comes directly from the well.

The main feed lines are 2-inch galvanized pipe and the liquid feed is forced through them at 64 pounds per square inch pressure. The actual feeding is done with 1-inch flexible hoses, in much the same manner as that used by a service station attendant filling an automobile. Twelve pounds of the liquid will be delivered per second—9 pounds of water and 3 pounds of actual feed. If a pen of 16 gilts requires 2 pounds of actual feed apiece, then the tap at the end of the hose will be open for exactly 11 seconds. Clocks in the building have large sweep second hands. This is one busi-



All under one roof,  
pens for 400 dry sows,  
78 farrowing crates,  
32 boars,  
in individual pens,  
and 1,400 growing  
gilts in pens of 12

[Guide photos



ness where the management encourages the staff to be good clock watchers.

Sows at Connaught are farrowed in crates which have adjacent creep feeders. Initially the baby pigs were weaned directly onto liquid feed when 3 to 4 weeks of age. This system has now been modified so that at some 7 to 10 days the pigs have access to dry feed. Weaning is still done at 3 to 4 weeks of age and it is then that the pigs receive their first liquid feed. Weaning is done by removing the sow; in this way the baby pigs do not have to contend with the double shock of weaning and adjusting to new surroundings.

Bo Henderson, who is in charge of the breeding section of Connaught's swine operation, says, "I like the liquid feed system. Two men can prepare the mixture and feed 1,000 pigs in 90 minutes. This includes feeding some 60 sows individually."

In order to protect a vast investment, sanitation and security receive a lot of emphasis at the Bolton farm. All buildings are kept locked. On entering, one has to strip off, shower and don coveralls and rubber boots. There are no exceptions to this strict rule; the plumber called at the time of my visit and before he could fix the water pipes he had to go through the ritual of washing and changing. The buildings have been designed so that each of the six farrowing sections can be sealed off, disinfected and fumigated between each batch of litters. Sows are bred in batches of 15 to ensure that at least 12 will be available for group farrowing.

With this level of sanitation, the question is whether liquid feed might go rancid and become a sanitation hazard. All feed lines are flushed out after use and are left full of water. Prior to the next feeding the hoses are run into the gutters for 2 minutes. The efficient ribbon-type feeders are hard to clean and have no drain. Therefore, with careless management, dirty feeders could present a very real hazard to swine health.

As with any new concept there are problems; plastic feed hoses proved to be inadequate and were replaced by nylon reinforced rubber hoses. The pens appear to be rather too wide and as a result not all pigs dung at the slatted area at the rear of the pen. This means additional chore time in hosing off the dirty pens. This means that a tremendous volume of water, and a large manure lagoon are required. The lagoon for the breeding barn alone covers 1½ acres.

Further experience will iron out these "bugs" and will provide useful information on feed conversion.

Says Johnston, "We're in a mass production business and liquid feeding fits in well with our breeding program. Complete slatted floors have no place in a breeding program—they're too hard on legs and hocks and preclude partial floor heating which is so desirable for baby pigs. However, if I were in the business of feeding hogs I'd go to 100 per cent slatted floors and have liquid feeding."

# COLD ROOM—COLD HOUSE SIEGLER SOLVES THE PROBLEM

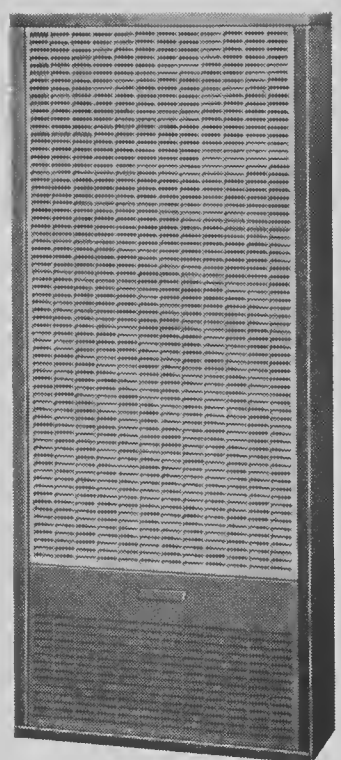
## Specialists in Area Heating

Siegler heating units give a roomfull—or an entire housefull of automatic heat... Your Siegler dealer can show you how to heat your entire home—or any area of it—at far lower operating cost. Your Siegler dealer is a specialist in solving unusual heating problems.

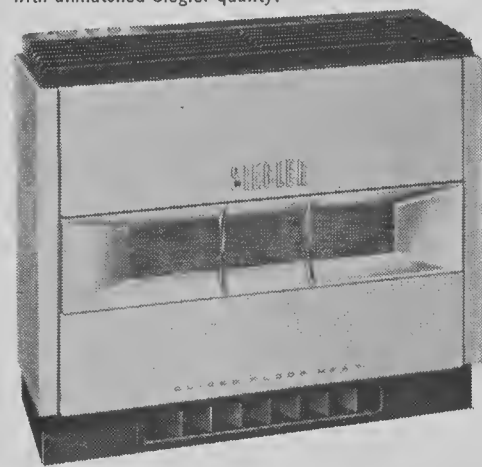
NATURAL  OR PROPANE GAS   
...TOWN OR COUNTRY... SIEGLER GIVES  
NEW HEATING COMFORT, NEW ECONOMY!



THE SIEGLER MARK III is a new concept in heating comfort. It pours heat out the front, out the sides and out the back. Heat can be piped through the walls to heat adjoining rooms at the side and back. Two sizes are available; Model 8565 heats your home with 65,000 B.T.U. and has 20,000 more B.T.U. in reserve for really cold weather. The Model 5030 operates on either 50,000 or 30,000 B.T.U. The MARK III presents a new concept in comfort combined with unmatched Siegler quality.

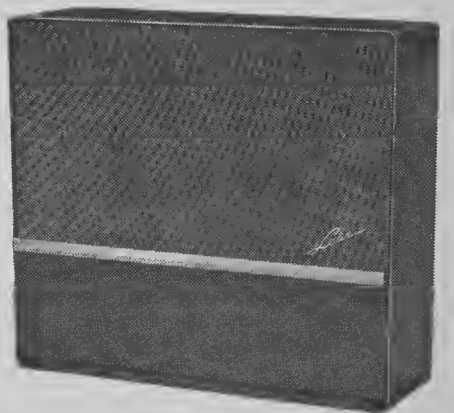


LEAR COMPACT LW-50—Another tall, thin heater by Siegler that can deliver 50,000 B.T.U., a full measure of automatic heat. Only 9" deep, clean, quiet and economy priced.



SIEGLER SWEEPING FLOOR HEAT—555 FURNETTE—Fan gently sweeps heat across rooms—at floor level! Also provides air circulation for Summer! Designed to heat an entire home. Warm, cosy floors in every room without costly pipes and registers.

LEAR CABINET GL-20 and 30—Easier to live with than a cupboard! Pilot light is 100% safety tested—won't go out! Vents directly through the wall and is completely sealed. Automatic thermostatic control. Heats larger rooms or whole areas.



LEAR BASEBOARD HEATER LB-10—Heats a whole room—a thin low radiator—with its own thermostat! Vents directly through the wall and is completely sealed. No electrical connections. May be installed room by room to give full "Zonized" heating.



ASK YOUR SIEGLER DEALER TO SOLVE YOUR HEATING PROBLEM—LARGE OR SMALL—NO OBLIGATION

# SIEGLER

CORPORATION OF CANADA LIMITED P.O. BOX 400, ORILLIA, ONTARIO

**This family  
raises sheep,  
beef cattle,  
dairy cattle,  
hogs and grain  
in pioneer  
cattle country  
on their . . .**



Guide photos  
Rodney (left) and Clarence Cyr baling and stooking hay

# Diversified Farm

by **CLIFF FAULKNER**

Field Editor

**BACK IN THE OPEN RANGE DAYS** of Western Canada, cattlemen used to campaign against sheepmen with the slogan, "No sheep between the Belly and the Bow." Today thousands of sheep graze between Alberta's Belly and Bow Rivers — a good many of them owned by ranchers who find cattle and sheep a good combination.

Such a man is Eugene Cyr, who farms with his son Rodney, and his younger son, Clarence, just south of Pincher Creek. In fact, the Cyr operation is more of a blend than a combination because it combines beef cattle, dairy cattle, sheep, hogs and grain in such a way that each complements the other. There is even a poultry flock to complete the picture.

"At the present time our sheep are bringing us more than the cattle," Eugene told Country Guide. "They have been averaging over 15 lb. of wool per animal and the lamb crop is running about 160 per cent."

The sheep herd consists of purebred Corriedales and grade stock. Rod Cyr has 50 head of purebreds, Clarence has 12 head and Eugene has 50 head of grades. Rod got into sheep a long time ago with money received when he won a

4-H beef championship. Both boys have raised sheep for years.

"It kept them supplied with pocket money while they were growing up," said Eugene.

Another thing Eugene likes about sheep is that they can be turned in on stubble land which is going to be cropped without any danger of them compacting the soil. Sheep are also close grazers. They prevent any weeds from heading out and going to seed. This works well with the Cyr's program of gradually eliminating their summerfallow.

"We had to summerfallow 65 acres this year because we grew flax on it last season and there was a heavy trash load to work into the soil," Eugene explained, "but we don't do this very often. Summerfallowing land here costs about \$12 an acre, so it's cheaper to just fertilize and sow it to winter wheat. Then we don't have to lie awake at night during the winter worrying that our land is going to blow."

All the farmers in the Pincher Creek to Lethbridge area are wise in the ways of wind erosion. Gale-force winds pouring out of Crow's Nest Pass in winter or early spring, combined with little or no snow cover, have made strip cropping or stubble mulching a must. In December 1961, a

115-mile-an-hour wind lifted the trash cover off of Eugene's fields and then began to blow the soil.

"We had just bladed the stubble so that it sat on top," he explained. "If we had disced it into the soil we would've been all right."

The Cyrs favor Winalta wheat — a hard red winter wheat developed at Lethbridge Research Station and licensed in 1961. They were among nine original test growers of this variety. They find Winalta matures earlier, yields better and has good milling qualities.

"One of the best things about Winalta is that it doesn't grow as much straw, so it doesn't lodge as much as some of the other varieties," said Eugene. "That's one of our big troubles here — too much straw. We have a bit more rainfall than they do farther east."

The Cyrs keep monthly rain and snowfall records for the Lethbridge Station. In fact, up until about 3 years ago the farm was a CDA illustration sub-station. Lethbridge still has a few experimental plots there.

Except for concentrates, the Cyrs grow all their own feed. Total land under cultivation is about 600 acres, including hay land. In addition to this they have 460 acres of native range located 12 miles west on the edge of the Rockies, which they use for summer pasture. Eugene was born on this piece of land that was homesteaded by his father in 1910. At the time, the elder Cyr had a job as a butcher at Beaver Mines, about 5 miles farther west in the mountains. Later, Mr. Cyr moved to Pincher Creek to what is now the home farm. Eugene and his wife, Dorothy, took over in 1944.

The Cyr beef cattle enterprise is a cow-calf operation. Besides the breeding herd, they feed only a few culls and replacement heifers during the winter.

"We haven't time to run a feedlot," Eugene pointed out. "Most of the year Clarence is away at school, so that leaves only Rod and myself to look after the stock."

The Cyrs have what you might call a multi-breed commercial beef herd of 80 cows and 2 Aberdeen-Angus bulls. Eleven years ago, Eugene started out with some good quality Hereford cows, then he got a Shorthorn bull. Later, he had a few cows settled with Charolais semen. Four of the calves weighed a total of 2,640 lb. at weaning. He was so pleased with the result he has had 30 cows serviced with Charolais semen this year.

"I don't get as much per pound for these cross-breeds," Eugene admitted, "but I get more pounds of beef, so my profit per animal is bigger. I'm going to stick with A.I. breeding for a while

(Please turn to page 53)



Crossbreds on their summer range in the mountains





**Take on the big jobs ... take on the tough jobs ...  
you cut 'em down to size with these big luggers.**

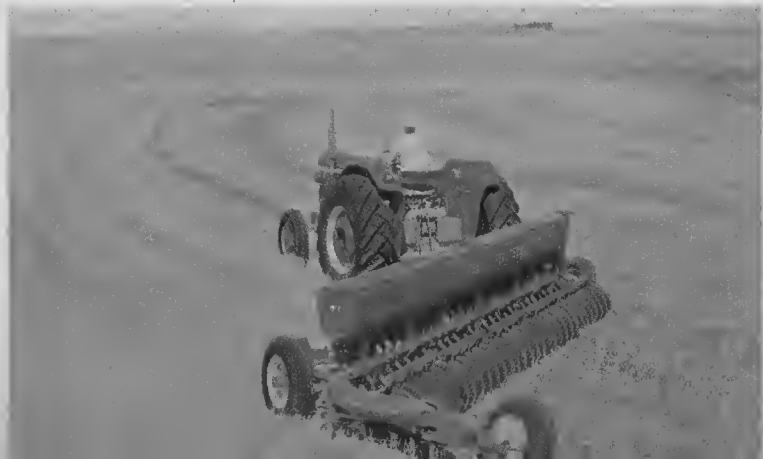
Out where you need big work-power to cut down on man-power, these are the diesels for you: the big "70-horse" MF Super 90 WR ... or the massive MF 97, over 100 HP strong! Take the Super 90 WR. It's got everything: Multi-Power to shift on-the-go at the flip of a switch, with 16 forward gear speeds. Differential lock to minimize wheel spinning. Power steering. Up to 3 remote cylinders. And economy ... the Super 90 Diesel averaged 12.65 HP-hours per U.S. gallon — or 15.18 HP-hours per Imp. gallon

**MASSEY-FERGUSON**   
World's largest manufacturer of tractors and combines

— in official tests! Or, take the giant "100 horse" MF 97, biggest MF diesel ever. With its massive 6-cylinder power plant, it gives a full-power working range of 1000 to 1650 rpm's. Shift it into 4-wheel drive (optional) and you get up to 50% more traction to end slips and stalls. And both models have cushioned, shock-absorbing Float-O-Matic Comfort Seats high up above the dust.

See them—The Big Ones! Ask too about the low-cost MF Time Payment Plan. Massey-Ferguson Limited.

The "70-horse" MF Super 90 WR Diesel



The "100-horse plus" MF 97 Diesel







Look into

'SUPREME'

"MONACO" in 15 colours

new three-dimensional solid vinyl tiles!

Mood magic in depth—new three-dimensional patterns in solid vinyl for the most talked-about, walked-about floors in your neighbourhood! Revealed above: SUPREME "Monaco" in heavenly blue—comes in 15 sophisticated colourings. Two more bewitching SUPREME patterns: lustrous "Triano" and "Crushed Marble"



"TRIANO"  
in 8 colours



"CRUSHED MARBLE"  
in 15 shades

**DOMINION OILCLOTH & LINOLEUM CO. LIMITED**  
2200 ST. CATHERINE STREET EAST  
MONTREAL, QUE. CG-3

Please send me your folder with 'SUPREME' vinyl sample.

☐ Monaco ☐ Triano ☐ Crushed Marble

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ PROV. \_\_\_\_\_

## Buying a Carpet?

"BUYING A CARPET is one of the homemaker's toughest chores, and this year she has more fibers, constructions and colors than ever before to choose from," says Dr. George S. Wham, technical director of Good Housekeeping Institute. Dr. Wham addressed the 13th Biennial Convention of the Canadian Home Economics Association in Winnipeg in July.

To make sure you get your money's worth in carpeting, Dr. Wham advised a little homework. He suggested sending for booklets, scanning newspapers and magazine advertisements and mail-order catalogs for price comparisons on various types of carpets. Then, when you buy, heed these suggestions:

1. Be sceptical about the word "FREE!"—installation, padding, etc. Chances are you'll not only pay for these, but get lower quality than you think.

2. On package deals (one price for carpet, carpet pad, and installation) ask for individual prices.

3. Any sales slip or contract should give the carpet manufacturer's name, the trade name of the carpet, style number, color, fiber content, price per square yard and number of yards purchased. The full contract price should be shown; also installation charges and description and cost of padding, if any.

4. Be cautious of advertising which promises to carpet any room, regardless of size, for a set price. Such ads are usually nothing but "bait." Good carpeting is sold by price per square yard. Any "bargain" should describe fiber content and price per square yard.

5. Get a written guarantee which states who gives the guarantee—dealer or manufacturer; how long and against what the carpet is guaranteed. A good guarantee will state all terms under which it is offered, such as replacement, refund, repair, etc.

Color is strictly a matter of taste, but remember that dull and dark shades hide soil best; yellows and oranges show soil most, and the brighter the shade the more soiled they tend to look. Blues, medium and deeper shades of green, greenish-blue, violet, brown, beige and gray conceal soil. Brown-toned beige looks better longer than rose beige because soil tends to "gray" rose hues, noticeably changing the original color.

Fiber is important, but excellent and poor carpets can be made of any fiber. Wool, nylon and acrylic fibers are best in resiliency, or crush-resistance. Rayon and cotton are likelier to show crushing of high-cut pile more; short, dense-loop pile somewhat less. Pile density, the closeness of individual yarns, is important to both wear and appearance. Price and density go hand-in-hand. Skimpy pile, with too much visible backing will soon look worn. Good carpeting contains 25 oz. wool fiber per square yard; 25 acrylic; 20 nylon; 30 rayon; 24 cotton; 22 polypropylene. Carpet backing should be firm, yet flexible.

New vinyl



**FLOORS BY DOMINION**

# Sheep are his Profitable Sideline

*This convert to sheep makes  
a profit of \$19.28 per ewe*

DO SHEEP HAVE a place on a mixed farm? If the experiences of Bruce Frame are any indication, the answer is "yes!" This is no idle boast either. Frame has accurate records to show that his sheep enterprise is a profitable one (see table).

Apples and broilers are the main enterprises on his Speyside farm at Milton, Ont., but sheep make a profitable and expanding sideline. The labor requirements for the sheep do not conflict with the busy periods on the farm and consequently contribute to efficient use of labor. The physical requirements are simple—an old barn and some relling land which has been seeded to birdsfoot trefoil.

One ingredient of Frame's success is that he "just likes sheep." This is only his third year with a flock, but the results are sufficiently encouraging to warrant expansion to some 200 ewes.

He says that good stock is important. His first 50 ewes were 3-way crosses. They were out of North Country Cheviot X Western ewes bred to a Suffolk ram, and were purchased from Walter Renwick of Clifford, Ont.

Any successful sheepman must get a high percentage of lambs per ewe. He must also get lambs that grade predominately choice. Frame scores well on both counts. His flock produced a lamb crop of 169 per cent the first year, 207 per cent the second, and an even two lambs per ewe this year.

Frame's sheep are housed in an

old bank barn which is kept clean and well bedded. Plenty of water is provided as well as adequate manger space for the ewes and lambs, and a heated creep area for the lambs.

His feeding program plays a big role in his success. During late winter and early spring, the lambs are given access to hay and a creep-feed mixture of rolled oats, calf pellets and bran. These supplementary feeds are cut off when the lambs go to pasture. Once they get a good start, the lambs will make maximum use of the trefoil pasture.

Here are practices which Frame credits with boosting the size of his lamb crop:

- He uses good breeding stock.
- He weans lambs in August, to get the ewes into good breeding shape by September for a lamb crop in February and March.
- He feeds oats to the ewes some 6 weeks before lambing.
- He dusts or sprays to kill ticks, and he worms the ewes four times a year.
- He turns the ewes out for exercise when they are not on pasture.
- Most important of all, he is in constant attendance at lambing time.

Frame sums up his view of his latest enterprise this way: "I don't expect sheep to make me rich, but I believe they are a profitable sideline."

## BOOSTER FOR THE FARM FLOCK

Comparison of the Bruce Frame flock with provincial averages, as prepared by the Departments of Animal Husbandry and Economics at the Ontario Agricultural College.

	Average flock	Frame flock
Costs per ewe	\$10.56	\$15.24
Revenue per ewe	19.72	34.52
Gross profit per ewe	9.16	19.28
Gross profit per lamb	8.16	13.20
Lamb crop percentage	112%	169%
Lamb mortality	15.8%	9.9%
Ewe mortality	10.7%	2%

by **PETER LEWINGTON**  
Field Editor



[Guide photos

A big lamb crop is essential. Bruce Frame has averaged two lambs per ewe on his original purchase of ewes



A heated calf creep gets the little lambs away to a very good start



Ewes and lambs get good trefoil pasture in summer while in the winter they are provided feed, shelter and exercise

## CHAMPION OF SHOWS! SHOW OF CHAMPIONS!



## THE ROYAL AGRICULTURAL WINTER FAIR

**Nov. 13 - Nov. 21**

Greatest Show of its Kind in the World—  
hundreds of interesting features

- Livestock
- Poultry and Pet Stock
- Flowers and Fruit
- Seed, Grain, Hay
- Government Exhibits

18,000 Entries  
offering prize money of \$160,000.



### HORSE SHOW TICKETS NOW ON SALE

Thrill to the spectacular Royal Horse Show featuring the exciting International Jumping Team competitions with entries from Argentina, Brazil, Mexico, United States and Canada.

For information and prize lists,  
write: W. P. Watson, Gen. Mgr.

**ROYAL COLISEUM**  
TORONTO 28

Renew early to make sure you get  
every issue of Country Guide.

PREVENT  
NUTRITIONAL  
**SCOURS**  
AND  
**RICKETS**  
•  
BUILD  
RESISTANCE  
AGAINST INFECTION

**"CALVITA"**  
**CALF SAVERS**  
REGD.

BOW SLOPE SHIPPING ASS'N LTD.  
Brooks, Alberta

### Annual Fall Sheep Sale

**BROOKS STOCKYARDS**

Tuesday, September 22, 1964

Good selection of EWES of all  
ages.

FEEDER LAMBS  
YEARLING RAMS

For further particulars write c/o

**Box 460, Brooks, Alberta**

## How to Keep Hogs Healthy

JUDGING FROM the large attendance and rapt attention at the Swine Health Workshop (a section of the Ontario Swine Improvement Conference) at Guelph, this topic is of vital interest to farmers. Here is a brief outline of some of the common problems and management practices involved in producing healthy pigs.

### Parasites

Dr. A. R. Brightwell, a practicing veterinarian from Stratford, dealt with parasites of swine.

"A parasite," said Brightwell, "is something that lives upon another living thing and uses that thing as a food supply. Parasites do transmit from one pig to another; if you can break that chain you can control parasites."

The most prevalent parasite is the common roundworm. These are long white roundworms which multiply rapidly and can stunt growth or kill the pig according to the severity of the infestation. Probably the worst mode of transmission in pigs is from the sow to baby pigs. Even one adult roundworm in a sow is capable of producing 250,000 eggs daily. The roundworm will mature in 14 days and a warm, damp and dirty

pen is the ideal environment for them.

"Suckling pigs," said Dr. Brightwell, "pick up roundworms from the sow's udder. They may get in the sow's feed and pick up the eggs. You can imagine a little pig 2, 3 or 4 days old, picking up hundreds of these eggs. The eggs hatch in the intestine forming a small worm, a larva, and these immediately start to burrow into the lining of the wall of the intestine. This burrowing may produce inflammation of the wall of the small intestine.

"Certainly this leaves the intestine wide open for infection. Worms, in fact, are probably the start of a lot of the infections and diarrhea which you get in your pigs from the time they are suckling till they are market weight. The larvae soon pass into the liver and other organs, when you get a poor-doing little pig. It is at this time that the liver is damaged. It is often necessary to discard a portion of the livers at slaughter, and this is one reason you do not get slightly more for your pigs at market. The larvae keep going and end up in the blood stream and finally in the lungs where they burrow through into the air passages, and are coughed up; subsequently



If a sow is thoroughly cleaned off before farrowing, her piglets will enjoy better health and faster gains

they are swallowed and become mature worms in the stomach of the pig.

"When the hundreds of larvae are going through the lungs, they set up an irritation which causes coughing. This is a good point again for the start of pneumonias that plague you from the time the pigs are weaned to market weight.

"To control roundworms you must start at the source which is the sow. She is carrying them. She may only

be carrying a few but that is where the problem starts. Let's worm those sows, twice a year, or preferably three times a year, if it works out for your breeding schedule. Perhaps you can worm them when you are breeding them. As for the products which you may use for worming, I recommend piperazine products. This is a common wormer, and one that you can buy off any shelf, from anybody who supplies medicants for pigs. It is in liquid or powder form, and you can mix it in the water or in your feed, or you can buy feed that is already mixed with the product. I think it is cheaper to buy the powder or the liquid if you mix your own feed. It is cheaper to buy the mixed product if you are buying feed from the mill.

"Let's put the sow into a dry farrowing pen that has been cleaned and disinfected, and let's put the sows in there in a clean state. Don't let them take old manure into the clean pen. Keep your sow pens cleaned out and dry for the rest of the nursing period. Don't give those worm eggs a chance to develop and infect the little nursing pigs.

"Worm your weanling pigs at 8 to 10 weeks of age. You should be able to worm them for from 7 to 10 cents apiece, if you will do it when they are small. You should repeat

Successful  
feeders  
across  
Canada  
choose  
**MIRACLE**

## ONTARIO:

*Strathburn Master Sunny produced 17,164 lbs. of milk, 647 lbs. of fat in 365 days as a 2-year-old. She is one of the reasons why James M. Brown, owner of Strathburn Farm and Dairy, is shown here, receiving the Holstein Master Breeder Award from Prof. G. E. Raithby of O.A.C.*

**Mr. James M. Brown, Almonte, Ont., milks approximately 50 top quality Holsteins, classified as follows: 3 Ex. 22 V.G. and 25 G.P. Consistently high production is most important at Strathburn Farm and Dairy to supply the 1700 quarts of milk required daily for delivery. "The cows like "Miracle" 16% Dairy Ration and milk well on it", says Mr. Brown.**



the treatment in 3 weeks if you have a very big problem. Use the same product as before, piperazine. There are others on the market which are perhaps a little more difficult to use.

"Some are more expensive, and some are perhaps even dangerous. When the worms are crawling through the lungs they do cause this husky cough and quite often my clients diagnose this as lungworm infection. It is probably not, as lungworms are transmitted by earthworms in pastures; if your swine are not on pasture, you are unlikely to have a problem with lungworm. If you put pigs to pasture, rotate the pastures and put rings in their noses to stop them from grubbing."

#### Enteritis

Dr. T. J. Hulland, head of the Department of Pathology at OVC, had some practical management advice on reducing the losses in young pigs due to enteritis.

"Prevention," said Hulland, "would be much better than treatment. One of the most frequent causes of scouring in weaned pigs and by far the most important cause of death in pigs of weaning age is coliform enteritis. The name simply indicates an infection of the intestinal tract by a particular family of bacteria. We have long been aware of the fact that all pigs carry representatives of this family of bacteria in their intestine at all times and, in fact, they perform important functions which contribute to digestion in normal pigs. In general, we imagine that, in normal growing pigs, there is a nice balance between the pig and his intestinal bacteria to their mutual benefit. When food is plentiful in the small intestine, the bacteria multiply and when food is scarce the bacteria are reduced in numbers and most of them are swept down the line.

"We have also known for some time that fatal coliform enteritis in weaned pigs is accompanied by an abnormal increase in numbers of the bacterial coliform family. People who do research on animals are generally backward in making blunt statements about cause and effect, but we do believe that the increase in the bacteria is the cause of the disease and, of course, the cause of the pigs' deaths.

"The trouble starts most often in pigs which are weaned onto very palatable starter rations and the problem seems to be more serious when pigs are weaned earlier than 6 weeks of age. Excess nutrients, which are not used by the pig, are used by the bacteria and this leads to large enough numbers of bacteria to cause the pig trouble.

"In our emphasis on rapid growth rates in pigs we seem to have forgotten that a weaned pig, and particularly a 3- or 4-week-old pig, is still a very young animal. Information available shows that the digestive processes in a pig of this age are simply not mature enough to handle all of the palatable ration that they can eat. Aside from the waste of feed that results, the extra nutrients appear to feed the intestinal bacteria until the point is reached where sickness results.

"At this stage it is quite unfair to make sweeping recommendations but it does seem reasonable to recommend some limitation to feed intake up to 1 or 2 weeks after weaning. The change to full feed probably should be a very gradual procedure. On a practical level, we have, in the past, suggested closing feed troughs for several hours during the day and this seems to be all that is required. I suspect that some good 'pigmen' have been doing this all along."

#### Dysentery

Dr. H. C. Pearce of the Department of Clinical Studies at OVC gave some sound advice on reducing dysentery.

"Dysentery," said Dr. Pearce, "can

affect a wide range of pigs. It is not restricted to weaner pigs alone. It is particularly common in weaned pigs which have been under stress because of being transported from one place to another at weaning time. Losses from the disease occur in three ways.

"First, there are the death losses which may be considerable. Second, unthriftiness over a long period of time, and third, the cost of treatment. Recently the disease has been noted in nursing sows and their litters. In this instance, the disease is sudden in onset. The sow goes off her feed, develops a profuse watery diarrhea and may vomit. The suckling piglets are similarly affected. At this stage the mortality rate may be extremely high.

"Over the years there have been a number of treatments devised for dysentery, but the one which remains the most effective is sodium arsanilate. This may be given to individual pigs in the feed or in the water as a preventive measure, or in higher doses as a treatment for an outbreak of the disease. Routine use of the arsanilate does expose the pig to the possibility of arsenical poisoning and care must be taken to follow directions accurately for its use. Other effective treatments are available but tend to be more costly, thereby reducing the margin of profit on each animal.

"Prevention of the disease is the main way in which a farmer may help himself. Dysentery control programs have been very effective and



### If you're cold in this underwear, better move South

Nothing (except, maybe, the tropics) will keep you warmer than Stanfield's Thermal underwear. This is because thousands of tiny knit pockets actually capture body warmth, and insulate you against below-zero weather.

This winter-proof underwear is made in a choice of weights in all-cotton, cotton and wool, and cotton and terylene. They will keep their shape washing after washing. You can get short-sleeve shirts from about \$1.95,

or long sleeves from \$2.95. Men's elastic-waist longs from \$2.50 to \$4.95. Boys' shirts will cost you around \$1.50, and longs with full double seat about \$1.95 to \$2.50. You'll be comfortable in Stanfield's. And they're a lot cheaper than moving south.

## STANFIELD'S

STANFIELD'S LIMITED, TRURO, NOVA SCOTIA

## ↓ MAIL THIS COUPON! ↓

Please send me a FREE copy of your valuable new full-color 16 page livestock book and the name of my local Ritchie dealer.

☐ Student

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Prov. \_\_\_\_\_

Mail Coupon to Nearest  
Distributor Listed Below

## ...AND RECEIVE YOUR FREE COPY

### OF THIS VALUABLE LIVESTOCK BOOK



For All Livestock Men, Dairy-men and Poultry Raisers... here's the most authoritative and complete catalog on the advantages of automatic watering ever offered. Full of examples showing how fresh, clean, temperature-controlled, germ-free water means faster gains, greater production and better profits. Pictures and describes the most complete line of automatic livestock and poultry waterers available... 82 waterers in 26 models to fit every need. Mail coupon for your FREE copy. No obligation. Ritchie has specialized in watering equipment since 1921. They have helped thousands of farmers plan modern chore-saving watering systems. Excellent sales and service facilities throughout the United States & Canada.



**Ritchie MFG. CO.**

Distributed in Canada By:

**MILLS FARM DISTRIBUTORS**  
89 Bloomfield Drive (Dept. 469)  
London, Ontario

**REMPEL DAIRY EQUIP.**  
882 Notre Dame Ave. (Dept. 469)  
Winnipeg, Manitoba

**FORANO, LIMITED (Dept. 469)**  
Plessisville, Quebec

**McPHERSON & THOM**  
802-11th Ave. S.W. (Dept. 469)  
Calgary, Alberta

**McPHERSON & THOM**  
8th Ave. & St. John St. (Dept. 469)  
Regina, Saskatchewan

## IF YOU HAVE RUPTURE

it is important that you  
Get this **NEW FREE BOOK**

This New FREE Illustrated Book tells how Rupture can be treated by a mild **NON-SURGICAL METHOD** and **THAT THE TREATMENT** is backed by a Life-time Certificate of Assurance.

The book explains that, although many people have not heard of, or have been misinformed about the non-surgical treatment, it has a long history of use and is recognized by authorities today.

Many men and women from all over the country have taken the **NON-SURGICAL TREATMENT** and have reported it has proven effective.

Write today for this New Free Book that tells **HOW** and explains **WHY** more and more sufferers are using **MODERN NON-SURGICAL Methods** of treating their ruptures. Act Now. No obligation.

**EXCELSIOR MEDICAL CLINIC**  
Dept. E 8739 Excelsior Springs, Mo.

## RHEUMATIC PAIN

Do You Long for Relief  
From Rheumatic or Arthritic  
Pain, Backache or Sciatica?

Do your joints and muscles ache so it is hard for you to get about, to bend or stoop, to use your arms? Are you kept awake by Wry Neck, Lumbago or Gout? Then here is **GOOD NEWS**—thousands of men and women get the relief from such suffering they longed for by taking Templeton's T-R-C's. Canada's largest-selling medicine, specially made for the relief of such pain. When you groan with pain, remember that T-R-C's are specially made to help you. Get T-R-C's, 85c and \$1.65 at any drug counter, and, like so many thousands of others, find satisfactory relief so you can sleep and work in comfort.

For extra fast results, apply Templeton's **FLAME-Cream** Liniment externally, and take T-R-C's internally. **FLAME-Cream**, roll-on bottles, \$1.25. W-64-4

Would you like pigs that weigh 70 lbs. at 56 days and go to market faster on less feed. Buy English Large Blacks and cross them with Landrace or Yorkshire. Free catalogue giving full details.

**TWEDDLE FARMS FERGUS, ONTARIO**

## LIVESTOCK

have saved a good deal of money on a number of premises. The whole of a disease prevention program, as far as dysentery is concerned, centers around an adequate disinfection program. When a pen is emptied of pigs it should first be thoroughly washed and cleaned of all bedding and droppings, etc. Steam cleaning is very effective if enough time is spent getting into the corners and crannies.

"The next step is to disinfect it and allow the pen to dry. This may sound like a complicated procedure, but if the pens in a barn are emptied and prepared in a rotational system it is possible to control the disease. Since it is very common to introduce the disease through bought young stock, it is good insurance to combine both a disinfection program and a routine dosage with an organic arsenical preparation.

"A word of caution, however, is necessary because not every pig with diarrhea is necessarily suffering from vibronic dysentery. The causes of diarrhea in young pigs are quite numerous and simply going ahead with arsenical treatments may not necessarily meet with success. When trouble occurs it is a good idea to call in your own veterinarian to establish a correct diagnosis before instituting treatment.

"It is a common complaint that many old barns are not easy to clean and disinfect. This is quite true, but I have seen quite a few old barns which have been kept spotless by their owners. All this means is that if you wish to maintain good sanitation in your swine herd, you can do so if you are prepared to make the effort. If you buy pigs from other sources don't mix them—better still, have one source of weaner pigs."—P.L. ✓

## Ship Calves in Cartons

**SIXTY VEAL CALVES** have been shipped from the United States to Europe in cartons. They went on a regular 14-hour air-freight flight from New York to Milan, Italy. In this experimental shipment the cartons were double-decked on pallets handled by lift trucks. Preliminary reports indicate the calves arrived in good condition. ✓

## Lactation Factor in Alfalfa

**UNIVERSITY OF WISCONSIN** scientists report that alfalfa hay contains a "lactation factor" which makes ewes milk better and puts faster gains on their lambs. In feeding trials, alfalfa in the ewe's ration before delivery made little difference to the lambs as long as non-alfalfa rations were balanced in energy and protein. However, during the lactation period, lambs did better where their mothers were fed alfalfa hay rather than oat straw as roughage, balanced with soybean oil meal and shell corn. Scientists report that they do not know what the "lactation factor" is but it doesn't appear to be protein energy minerals or known vitamins. ✓

## Neck Straps for Pigs



George Robson, manager of the Shur-Gain Farm, examines the leather strap on a sow

**PIGS** are being tethered with leather straps connected to snap-on chains, in an experiment at the new Swine Research Center at Shur-Gain Farm. The dry sows are tied in the same manner as dairy cattle, with their own feed troughs in front of them. They have sufficient room to move within the partial stall and either stand or lie down.

According to Farm Manager George Robson, the system is working well. The sows adjust to it quickly and seem to become quite

comfortable. One of the smarter animals may eventually work its head out of the leather strap but this is a rare occurrence.

Robson says one of the main advantages of the system is that a larger number of dry sows can be accommodated in a relatively confined area and the sows can be individually fed. "The advantage of individual feeding is that the feed intake of each can be controlled for test work and to maintain optimum breeding weights," he adds. ✓

## Setback for SPF

**ATROPHIC RHINITIS** has been diagnosed in four of the certified SPF herds in Ontario. Certification for the infected herds has been cancelled.

According to Dr. Ken McDermid of the Livestock Branch, "In all four herds the disease has appeared in a very mild form and does not seem to have adversely affected the rate of growth or feed efficiency. The department is continuing to conduct both clinical and post mortem examinations of pigs from these herds. From the results of these examinations it will be possible to determine the pattern the disease will take in SPF herds and its effect on the performance of such a herd.

The SPF program is designed not only to eliminate atrophic rhinitis, but virus pneumonia as well. To date, virus pneumonia has not been diagnosed in any herd enrolled under the certified herd policy. Currently 34 herds are enrolled, 10 of which are certified.

As a result of the breaks occurring in the four herds, more rigid recommendations are now being made regarding the introduction of pigs into SPF herds and particularly in certified herds. By encouraging breeders to take more stringent precautions in this regard it is hoped that the risk of introducing atrophic rhinitis will be reduced.

SPF herds should be restricted to:

- Pigs from an approved labora-

tory. In other words, pigs which have been removed from their dams by caesarian operation and maintained under aseptic conditions until reaching the farm, or

- Pigs from a certified herd but such pigs to be placed in strict isolation for a period of 6 months. At the end of this period and before removing the pigs from isolation the breeder is instructed to contact the department to ascertain if the health status of the herd of origin is satisfactory. If satisfactory, the pigs may then be removed from isolation and added to the herd.

Malcolm Davidson of Brucefield, Ont., secretary of the Ontario SPF Swine Association, points out the need for stricter health precautions as there is some evidence that the disease has been transmitted on clothing. "No visitors," says Davidson, "except those who absolutely have to, should enter where the very young pigs are housed."

Eric Alderson, president of the Ontario SPF Swine Association, puts the present outbreak of atrophic rhinitis in perspective. "Fortunately, there has not been one instance of a break in the control of virus pneumonia so that even the disqualified herds still have a health standing and efficiency very much higher than most conventional herds.

(Please turn to page 26)



At its display at last year's Royal Agricultural Winter Fair, the energetic young Ontario SPF Swine Association promoted the advantages of raising hogs free of atrophic rhinitis and virus pneumonia

[Gulde photo]

# CANADA PACKERS

## Annual Report

The 37th year of Canada Packers Limited closed March 28th, 1964. The following is a summary of the year's operations compared to the previous year:

	Fiscal 1964	Fiscal 1963	Increase
Dollar Sales .....	\$599,970,000	\$589,014,000	1.9%
Tonnage* (lb.) .....	3,136,000,000	2,916,000,000	7.5%
Net Profit .....	\$6,214,000	\$5,763,000	7.8%

The net profit expressed as a percentage of sales was 1.05%.

The net profit for the year and for the previous year is made up as follows:

	Fiscal 1964	Fiscal 1963
Profit from operations .....	\$5,427,000	\$5,457,000
Income from investments and profit from disposal of investments and fixed assets .....	901,000	428,000
	\$6,328,000	\$5,885,000
Less interest of minority shareholders in subsidiary companies .....	114,000	122,000
	\$6,214,000	\$5,763,000

The profit from operations is very slightly less than last year.

The cause of this was unsatisfactory results in the packinghouse business.

The parts of our business other than packinghouse showed satisfactory results for the year.

\* The tonnage figure corresponds to those in previous years' reports and represents pounds of product sold by the companies primarily engaged in the packinghouse business.



In 1963 inspected slaughter of cattle in Canada reached a record high of 2,126,716 cattle — an increase of 4.9% over 1962. In the first four months of 1964 inspected cattle slaughtering increased by 8.2% over the previous year.

Cattle population in Canada is now at an all-time high. Exports of feeder cattle to the United States in 1963 were substantially less than the previous two years:

Year	Exports of Feeder Cattle
1963 .....	157,000
1962 .....	349,000
1961 .....	350,000

These facts indicate a further increase in Canadian cattle slaughtering in 1964.

Cattle marketings in the United States in 1964 are expected to reach a record high, so that it seems unlikely that any large quantity of Canadian cattle or beef will be sold there.

All of this indicates that Canadian beef consumption will increase again this year from the record high of 73.8 pounds per capita in 1963.

Because of the increased Canadian supply and the declining cattle prices in the United States, Canadian cattle prices declined during 1963 and the average for the year was some 2 cents per pound lower than 1962, but still above 1960 and 1961 prices.

Many cattle feeders had unsatisfactory results because the price of feeder cattle was high and the finished cattle were sold on a declining market.

This situation naturally resulted in resistance to declining live cattle prices. At the same time the increased supply of beef brought constant downward pressure on wholesale beef prices.

These factors (along with the existing over-capacity in slaughtering facilities) resulted in a narrow margin between the live cattle price and the beef price and unsatisfactory results for the packing industry.

Over the past decade there has been a remarkable change in the average quality of cattle marketed in Canada. The percentage of inspected cattle slaughtered which grade Canada Choice and Canada Good (the two top grades in beef) has increased from 32.6% in 1954 to 52.1% in 1963.

This increase in percentage of high quality, well finished cattle has been steady and seems likely to continue. Canadian consumers have demonstrated a preference for this high quality beef and the Canadian cattle producers have done a remarkable job in satisfying the demand.



In 1963 there were 6,520,828 hogs marketed for slaughter in Canada — a decrease of 1.1% from the previous year.

This overall decrease of 1.1% was made up of an 18.7% decrease in hog marketings in Western Canada and an 11.0% increase in Eastern Canada. Undoubtedly the very successful export sales of Canadian wheat have resulted in less interest in hog production in the prairie provinces.

Despite less total Canadian hog marketings, the average price of hogs in 1963 was slightly lower than the previous year. This was so because increased United States hog production resulted in lower hog prices there, and the decrease in Canadian marketings was more than offset by an increase in imports of pork from the United States which reached a record high of 87.2 million pounds — equivalent to probably 700,000 hogs, or about 10% of Canadian hog marketings. This resulted in an increase in Canadian pork consumption from 49.8 pounds per capita in 1962 to 50.7 pounds per capita in 1963.

The first quarter of 1964 has shown a 12.5% increase in Canadian hog marketings and forecasts indicate an increase of about 9% for the year. Imports of United States pork have been greatly reduced compared to last year, and the prospect is that total supplies of pork products for sale in Canada will be much the same as last year.



Capital expenditures for new facilities this year were higher than in the past, amounting to \$7,400,000. These additions to the company's productive assets completed during the year included:

A new highly automated feed plant at Winnipeg, which greatly increases animal feeds manufacturing capacity there.

A new distributing branch at St. John's, Newfoundland.

Increased capacity for frozen foods at our Brantford, Ontario, plant.

Substantial additions to our Montreal and Edmonton packinghouse plants.

An increase in the capacity of our Walkerton, Ontario, poultry processing plant.

A major addition to our chemical operation at Toronto to produce fatty amines, which have many industrial uses and have not previously been made in Canada.

A hog production and feeding research unit at our experimental farm at Maple, Ontario, where our Feed Division and our Research Division will undertake investigations which we hope will contribute to knowledge in this field and will benefit Canadian hog producers.

A start has been made on a major replacement and enlargement of pork processing facilities at our Toronto plant. This will not be completed until the summer of 1965.

All of these projects were carefully studied and we are confident that they will result in a worthwhile increase in earning power for the company.



Directors report with pleasure that employee relations throughout the year have been harmonious and co-operative. On behalf of the shareholders they extend cordial thanks to all employees.

W. F. McLEAN,  
President.

Toronto, June 12th, 1964.

*Copies of this Report may be secured on request to  
Canada Packers Limited, Toronto 9.*



## LIVESTOCK

(Continued from page 24)

As in any health program in the past, some breaks were expected, although it is ironical that these should have occurred in herds which pioneered the program. Furthermore, this has brought home most forcibly some additional precautions that should be taken when transferring stock from one certified herd to another.

In spite of these individual setbacks, the majority of certified herds are progressing well and the numbers are steadily growing. Demand for certified pigs is almost outrunning production and it is of paramount importance to the swine industry that sources of supply for clean seed stock be maintained and developed.—P.L. ✓

### Rhinitis Strikes SPF Herd

A MILD FORM of atrophic rhinitis has been diagnosed in the swine herd at the Shur-Gain Research Center at Maple, Ont. Farm Manager George Robson reports that no reasonable explanation for the presence of the disease has been found, but that a very extensive investigation is being conducted. He added, "We view the situation not as a calamity but as a development which if properly studied can be of far-reaching value to the Canadian swine industry. In view of the lack of any contact between infected pigs and those in our herd, we are investigating the possibility that the disease may have been introduced by visitors carrying it on their clothing or by other carriers such as birds or rats." ✓

### One Way to Get More Lambs per Ewe

RECENT TRIALS at the University of Alberta have shown that lambs can be successfully weaned at an average weight of 36 lb. when they are 35 days old.

The testing program was designed to compare the performance and relative feed costs of lambs that were weaned early and those which were left on their dams. Consideration was also given to breeding back the ewes to get more than one lamb crop per year. This was accomplished by giving hormone injections and by artificial daylight control.

A high-energy 24 per cent starter ration and alfalfa hay were self-fed to the lambs for the first 6 weeks. Following this a 3 per cent grower ration was fed until the lambs were marketed.

Results showed that the unweaned lambs held a 4 lb. weight average over the weaned lambs at 56 days of age. But the cost of feed for lambs and ewes per 1 lb. of lamb produced was in favor of the weaned lambs by about 3 cents a pound. This was because the dams of the weaned lambs were maintained on a ration

of alfalfa hay at the rate of 3 lb. per day after weaning.

Dr. R. T. Berg of the animal science department, who conducted the tests, said the maintenance ration proved of benefit in a program involving two lamb crops a year. Flushing the ewes also increased the number of lambs born. He points out it is important to bring the ewes to the flushing point from a poorer condition. The maintenance hay ration then became an important part of the breeding program as well as cutting feed costs.

A conception rate of 75 per cent was obtained on the second breeding of ewes by means of the hormone injections, but was not as successful as the daylight control method. A gradual shortening of the daylight hours in the fall brings the ewes into breeding season. With this established, researchers simply turn the clock around and expose the ewes to gradually shortening daylight in the spring. This is done by keeping the ewes indoors under artificial light to simulate summer months, and then gradually reduce the amount of light until the ewes feel they are going into the winter season. By this means, a second lamb crop of 150 per cent was obtained under the university studies. Combined with the earlier January lambing this gave a total of 3 lambs per ewe within 14 months.

Dr. Berg says that while the cost of labor is a prime factor in lamb production, increasing the number of lambs per year by such a program — if labor is available — will result in greater net profits for the farm flock. ✓

### How to Feed Small Pigs

ACCORDING TO THE University of Saskatchewan, a well-planned feeding program for pigs must begin at conception. Begin with a good sow feeding program if you want strong, healthy litters. After birth, the make-up of the ration will depend upon whether the pigs are to be weaned "early" or "late." Early weaning is recommended unless you lack the proper facilities to carry out such a program. However, weaning at about 15 lb. permits earlier re-breeding of the sow and lower feed costs.

Feed early weaned pigs a pre-starter or early weaning ration to a weight of about 25 lb. The increased returns easily repay the cost of these rations. Pigs weaned at 6 weeks of age should be fed a starter ration until they reach a weight of 35 to 40 lb.

Palatability is important in these rations. Oat and wheat groats are recommended as a base for both of them. Wheat groats alone can be used, but oats seem to be the most palatable grain for baby pigs. Antibiotics are also essential. The strength of these antibiotics is determined by the "disease level" of the premises. If you don't have proper feed mixing equipment available, the university recommends that you feed a commercial product. Pelleted or crumbled rations may be preferable. ✓

## FARM BUILDINGS STAY RIGID & TRUE WHEN YOU BUILD WITH SELF-BRACING FIR PLYWOOD

Fir plywood makes tight, draught-free farm buildings. Big 4 ft. by 8 ft. sheets are light in weight and easy to handle. In large buildings and small, self-bracing fir and other western softwood plywoods (edge-marked PMBC) provide rigidity and lasting strength. Nails hold well.

Build for less with plywood marked PMBC. Large, uniformly sized panels go up quickly, giving full value coverage with little or no waste. Labour costs are reduced. No special skills or costly tools are needed. Plan and build with fir plywood for lowest overall cost and longer lasting

strength. When you order from your lumber dealer, ask for free plans of pole frame and rigid frame buildings,



or write to 550 Burrard Street, Vancouver 1, B.C.

*Fir and other western softwood plywoods are ideal for lining the interiors of farm buildings. Plywood stands up well to hard knocks and is resistant to damage by livestock and poultry. With plywood, condensation is reduced — linings are easy to keep sanitary.*

Waterproof Glue

## FIR PLYWOOD

Plywood edge-marked PMBC has Waterproof Glue  
Plywood Manufacturers Association of B.C., Vancouver 1, B.C.

F-64-H

Look for the edge-mark



NATIONAL FOREST PRODUCTS WEEK — September 20-26, 1964.



## Room for Improvement? See the 'Royal' about a Farm Improvement Loan

A 'Royal' Farm Improvement Loan helps you purchase top stock—finances necessary construction—repairs—extensions—electric systems or equipment to improve or develop your herd.



## ROYAL BANK

### Healing Substance In Preparation H Shrinks Piles

Exclusive Healing Substance Proven To Shrink Hemorrhoids And Repair Damaged Tissue.

A renowned research institute has found a unique healing substance with the ability to shrink hemorrhoids painlessly. It relieves itching and discomfort in minutes and speeds up healing of the injured, inflamed tissue.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most important of all—results were so thorough that this improvement was maintained over a period of many months.

This was accomplished with a new healing substance (Bio-Dyne) which quickly helps heal injured cells and stimulates growth of new tissue.

Now Bio-Dyne is offered in ointment and suppository form called Preparation H. Ask for it at all drug stores—money back guarantee.

### Don't Neglect Slipping

## FALSE TEETH

Do false teeth drop, slip or wobble when you talk, eat, laugh or sneeze? Don't be annoyed and embarrassed by such handicaps. FASTEETH, an alkaline (non-acid) powder to sprinkle on your plates, keeps false teeth more firmly set. Gives confident feeling of security and added comfort. No gummy, gooey, pasty taste or feeling. Get FASTEETH today at drug counters everywhere.

# Dairying

## Is Loose Housing on the Way Out?

ALTHOUGH IT TOOK the milk cow a long time to gain her freedom from chains and stanchions, she may not be long in losing that freedom again, or at least some of it.

The popularity of loose housing was based chiefly on its labor-saving merits. Now, with the development of mechanization in and around the farm buildings, has come a reappraisal of loose housing.

Howard McNaught of Monkton, Ont., is one farmer who became disenchanted with loose housing and revamped his buildings. Since he liked his parlor milking, he retained this feature in his new setup. His cows are still milked in the parlor but they are now tied in single head rail tie stalls. McNaught designed his new setup to overcome other management problems, too. Last year, for instance, he had to overgraze a good alfalfa field during a dry spell and this spoiled it. During one period of lush growth he lost seven cows with bloat. In planning his new buildings, he considered the idea of zero grazing (of cutting feed twice daily) for cows. However, this is a time-consuming practice, and machinery can seriously damage fields if it is moved over them in wet weather. As a result, McNaught decided on a system of stabling the cows for 12 months a year. Now he stores early forage as haylage. Corn is blown into the silos later. Hay is made late in the season when chances of weathering are reduced.

Another development that is winning more attention in dairy cattle housing is the free stall. In a study of 45 such arrangements in the State of New York, no less than 26 had been converted from loose housing. However, there are indications that the transition to free stalls is not without some problems. A survey in Massachusetts indicated that free stall housing systems require more labor than loose housing, rather than less.

There are also indications that the free stall, rather than being a lasting system in its own right, may well be another step in the transition from complete freedom to complete confinement for the dairy cow.

In New York state, portions of free stall open front barns are already being closed in. One Ontario agricultural engineer puts it this way, "A particular dairyman won't be satisfied if he still has to put up with the problems and limitations of loose housing. Free stalls can work well if they are properly laid out, especially if they are combined with a slatted floor area and a manure tank. Some farmers will feel they must close off the doors, insulate and ventilate the stall barn, and then tie up the cows."

Over the years, the complete cycle of dairy cattle housing seems to have



After a brief spell of freedom cows are again being confined as shown in this single head rail tie system. There are some dairymen using mechanized feeding the year round

run something like this: stanchions, loose housing, a combination of stanchions or single head rail tie stalls and milk parlors, and then free stalls.

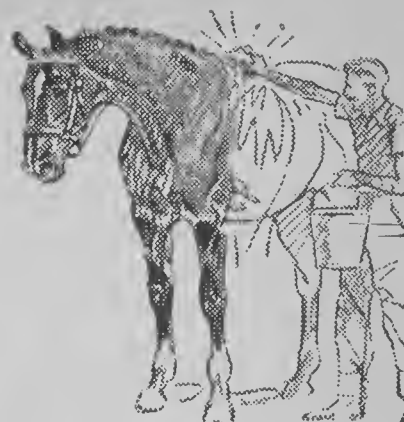
Prof. Jack Pos of OAC says, "I see a lot more free stalls this year, but this is still a transitional development. Many free stalls have a dirty environment. Free stalls have to be incorporated into a complete system. It is not enough just to replace the bedded area in loose housing with stalls. Also required is a closed, low temperature barn, with adequate provision for storage and removal of manure."

Pos looked into his crystal ball and sees further changes on the horizon. He predicts that we will see barns which have no feed alleys, but which have automated and rationed feeding systems, not only for concentrates but also for roughages. He believes reduced building costs will offset the costs of automation, and the cows will be kept inside the year round.

When Pos prepared his Master's thesis on loose housing in 1952 he wrote to 51 farmers who were using loose housing. Most of them had had their systems in operation for only a year or two. One man, a step ahead of the times, had been using it for 40 years.

By the time dairymen get their cows completely confined and all the chores completely automated, some enterprising farmer may again discover a radical system of housing. It may well be called loose housing. —P.L.

Unless you get milk in some form every day, there's a good chance you won't get enough calcium and perhaps riboflavin, two nutrients you need throughout your life.



## How to take better care of your horse—3 ways!

For farm, ranch or pleasure horse—no liniment made can touch the all-round good job that Absorbine does for you. Used directly on swollen tendons and tender areas, it draws the soreness out. Used as a wash after a workout, Absorbine helps horses cool out and keep sound and fit.

Buy it as an astringent, conditioner and gentle antiseptic. The long-lasting bottle is still only \$2.50. Also available in gallon size.

## ABSORBINE

W. F. Young, Inc., Montreal 19, P.Q.



### A New FREE BOOK for

## MEN PAST 40

Troubled With Getting Up Nights, Pains in Back, Hips, Legs, Nervousness, Tiredness.

This New Free Book points out that if you are a victim of the above symptoms, the trouble may be traceable to Glandular Inflammation . . . a condition that very commonly occurs in men of middle age or past.

The book explains that, although many people mistakenly think surgery is the only answer to Glandular Inflammation, there is now a non-surgical treatment available.

### Non-Surgical Treatments

This New Free Illustrated BOOK tells about the modern, mild, Non-Surgical treatment for Glandular Inflammation and that the treatment is backed by a Lifetime Certificate of Assurance. Many men from all over the country have taken the NON-SURGICAL treatment and have reported it has proven effective. Treatment takes but a short time and the cost is reasonable.

### WRITE FOR NEW FREE BOOK

This Book may prove of utmost importance to you. Write Today. No obligation.

EXCELSIOR MEDICAL CLINIC  
Dept. M 8749 Excelsior Springs, Mo.

## DOUBLE PUMPING CAPACITY

AT NO EXTRA COST!



Clem Roles, Pres.  
Smith-Roles Ltd.

Why buy a compressor that's too small? The COMET HI-VOLUME with twice the pumping capacity of other units has more than 20 uses on today's modern farm. Prevents wasted time and lost money! Pays for itself easily. Let me send you the full story.

### Please send me details on:

☐ COMET HI-VOLUME Air Compressor at sr-12  
Absolutely no Obligation.

☐ Check Here if you wish information on our "Spare-Time" Farmer Agent Plan

NAME .....

ADDRESS .....

**SMITH-ROLES**  
LIMITED  
SASKATOON

Makers of the "COMET" the world's finest

## KEEP WARMER WHILE YOU WORK



YOU DESERVE A GENUINE  
**Heat-Houser**  
TRACTOR COVER



Tailored to fit all popular tractors, Heat-Houser offers you complete "cold weather" protection. Just imagine! No biting penetrating wind... no wet, miserable operating conditions. All the heat you need is provided by the 1-piece water and mildew resistant heavier canvas cover. Adjust it for the exact heat you want. It's so easy to install the accurately tailored Heat-Houser. Fit is guaranteed—and there are no raw edges to ravel.

Heat-Houser features the finest side entry design available and a large, extra heavy, tinted windshield that reduces glare. Gives complete front, side and rear viewing from the tractor seat... no standing to see wheels and furrows. Full view side wings "get behind" the operator for side wind protection. Windshield is sealed in steel for extra strength and folds down for low clearance.

First for more than 25 years, a genuine Heat-Houser costs no more—so why settle for less? Write for a free folder.

QUE-MAR EQUIP. LTD.,  
124 Labrosse Ave., Pointe-Claire, P.Q.

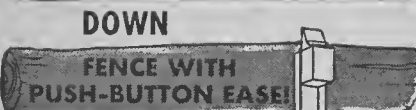
FALCON EQUIP. CO. LTD.,  
299 Danforth Rd., Scarborough, Ont.  
530 First St., London, Ont.

ALLIED FARM EQUIP. LTD.,  
980 Pacific Ave., Wpg. 3, Man.

GRAIN BELT FARM EQUIP. LTD.,  
1920 First Ave., Regina, Sask.  
2025 Quebec Ave., Saskatoon, Sask.

NORTHWEST FARM EQUIP. LTD.,  
Cor. 7th Ave. - 6th St. E., Calgary, Alta.  
14820 - 123rd Ave., Edmonton, Alta.

## HAMMER FENCING COSTS DOWN



with **DANUSER**  
Post Driver!

- Tractor-mounted PTO-driven, ONE MAN OPERATION!
- 200 lb. driving weight delivers 25 blows per minute
- Drives steel or wood posts—no splitting or "mushrooming"
- Trailer model with 3 h.p. engine also available
- Detailed information on request—also, free booklet, "Guide for Better Fencing"

Stocked throughout Canada for Immediate Delivery  
Contributing to Farm Mechanization

**DANUSER MACHINE COMPANY**  
511 East 3rd Street, Fulton, Missouri



SOFT  
resilient

**CAT'S  
PAW**

non slip  
HEELS  
AND SOLES

**CAT-TEX**  
half and full soles

AT ALL FINE SHOE REPAIRERS

## Soils and Crops



Hundreds of Ontario farmers showed intense interest in all phases of drainage at the recent Provincial Drainage Field Day

[Guide photo]

## Why Drainage Pays

THE BOB HARDY FARM at Appin, Ont., which was the scene of an invasion last month, won't be the same again. Farmers came by the hundreds to see what modern equipment and engineering know-how can do. A dugout pond was built, an old treed fence-line was cleared, a concrete silo was erected and thousands of feet of drainage tile were laid.

For some observers, it was an anomaly that the drainage day should be held in what has been the dry center of Ontario; it was ironic that it was postponed for one day owing to rain!

In talking to farmers at the Hardy Farm, ODA soils and crops specialist Russell Johnston estimated that some nine million acres in the province

would benefit from drainage. He gave these reasons for drainage:

- To remove excess water from the land, thus avoiding crop damage.
- To make it possible to work land earlier in the spring.
- To allow the soil to warm up faster in the spring, giving better seed germination.
- To allow better aeration which is beneficial, not only for growing crops, but also to promote the bacteria which break down organic matter.
- To allow better root development and consequently greater drought resistance.
- To give improved soil structure, which results in better crops and

more crop residues for return to the soil.

- To reduce erosion.
- To get a better response from the use of fertilizers.
- To make possible more efficient use of larger machinery.
- To provide a uniformly well-drained farm, on which greater flexibility of management is possible.

Extension Engineer Ed Brubaker emphasized the value of drainage this way: "Tile drainage provides the fastest returns of any capital expense on the farm." He advised those who were interested, to join with their neighbors in their watershed, in planning their drainage program. He also advised them to plan the complete system before laying a single tile, and to install mains which are adequate for the volume of water involved.

Last year, tests in Ontario's Lambton County showed that tile drainage added \$12 in profit per acre. Bill Abraham, the agricultural representative, said, "We fully expected that the benefits would be twice as much; 1963 was a dry year and only half an inch of rainfall fell on the soybeans between planting and harvest."

Bob Hardy speaks with all the feeling of a farmer familiar with a few wet spots, and one who knows what it costs to have poor drainage. He says, "I don't have to figure with a pencil and paper to know that tile drainage pays."—P.L. V

## Hay Handling Methods

HAY HANDLING METHODS such as baling, chopping dry hay, and silage making, are on trial in Saskatchewan.

In one trend, several farmers are abandoning the neat bale stack because it allowed considerable spoilage from rains. Dairy farmer Alvin Hauptstein is trying non-stacked piles of bales. This Weyburn farmer, who is building a metal loose housing barn, admits the bales may not look as neat as stacked bales, but the method saves work and allows bales to dry out faster following rains. He reports spoilage is down considerably from the conventional bale stack.

Ray Barber at Carnduff, is putting up his grass-alfalfa hay with a hay chopper and blower. He used an adaptation of the cages built commercially for forming loose hay stacks. He had a local welder construct a pipe cage about 20 feet square and 15 feet high. It is lined with woven wire, and hay blown into it from the feed chopper forms neat square stacks.

Ray is also trying out a more permanent frame constructed from wooden slabs. He uses a plastic cover over the stack, held in place with nylon net.

Other farmers are turning to silage, and storing it in inexpensive pit silos dug into hillsides, dugout

banks and other areas. Many, like J. Nieszner at Weyburn, are packing silage between walls of straw bales. This method has reduced spoilage as well as costs. Nieszner uses a hydraulic hoist attached to the silage wagons, to unload the silage.

Bale handling is being mechanized. Devices such as bale chucks that load wagons towed behind balers, bale stokers and bale loaders are available. Recently, a large bale stacker has come into use. It is loaded with bales and then raised hydraulically at one end to stack the bales in place. This system is being used at the ranch of Hardy Holdings Ltd., south of Radville. V

## Potash Required

TESTS INDICATE that a potash fertilizer may be needed in some areas of west-central Alberta. D. R. Walker of the Lacombe Experimental Farm says symptoms of potash deficiency have been apparent for several years on a fairly large area of lower lying soils. He reports that Harold Luce, who farms in the Crestomere district, west of Ponoka, has been experimenting with potash since 1957 and he obtained a spectacular response from potash fertilizer in 1963. Mr. Walker set out six plots this year testing rates of potash with and without the addition of phosphorus. He reports that the potash response is evident

at all locations. The response is much greater where potash is in combination with phosphorus. In several tests, the addition of phosphorus alone accentuated the potassium deficiency symptoms and growth was poorer than where no fertilizer at all was applied. V

## Recent Advances in Potato Fungicides

RESEARCH SCIENTIST L. C. Callbeck of the Canada Department of Agriculture, Charlottetown, predicts that even better fungicides for the control of potato diseases are on the way. He reports that much of the research work being done has dealt with protective fungicides, but he anticipates that products which will eradicate fungus diseases will be developed. He also predicts that systemic fungicides will be developed.

Callbeck states that in Prince Edward Island where fungus diseases are normally present, and often severe, it has been demonstrated that spraying is superior to dusting, that a regular schedule of treatments is usually necessary, that high volume sprayers are superior to low volume sprayers and that better control is maintained when the sprayer boom carries drop nozzles as well as top nozzles. V



## Sprinklers Cut Water Needs

RESEARCH workers in Arizona say that if you are using flood irrigation, sprinklers may cut your water needs in half. Tests in that state showed average alfalfa hay yields of nearly a ton and three-quarters from each acre-foot of water applied with sprinklers. The average over a 3-year period for flood irrigation was less than a ton of hay per acre-foot of water used. The scientists say that when farmers change to sprinklers from furrow or flood irrigation, it is not unusual to find acreage under irrigation can be doubled without increasing the total water used. ✓

## Irrigation Water

TESTS conducted at Taber, Alta., by the Canada Department of Agriculture indicate that 2 feet of water in the form of rain, soil water, and irrigation water can result in yields of up to 5 tons of alfalfa or 4 tons of grass. Five cuttings are possible. Annual cereal crops required 15 to 18 inches of water over the growing season. Row crops required somewhat more water due to more evaporation between the rows. In the tests, plants made best use of the water supply during the growing period of late June to late July. The least evaporation occurred during this period. ✓

## Simple Mixtures Best

MIXTURES OF grasses with alfalfa did not yield more hay than the simple grass-alfalfa mixture in tests at the Forage Crop Laboratory, Saskatoon.

In reporting this, Dr. R. P. Knowles reported that brome and intermediate wheatgrass provided the least competition to alfalfa with nearly 40 per cent of the alfalfa remaining in the mixture after 6 years. Protein levels were also higher because of alfalfa in the mixtures. Grass-alfalfa mixtures yielded nearly 1½ tons per acre compared to 1 ton per acre for grasses alone in 8 years of testing. ✓

## New Rye Licensed

A NEW VARIETY of fall rye, Frontier, has been licensed for sale by the Canada Department of Agriculture. Frontier outyielded Antelope and Dakold by a substantial margin in comparative tests at Melfort, Sask. Moreover, it suffered less winter damage. The new variety has been tested right across the prairie provinces. It is as hardy as Dakold 23 and Antelope but it has better kernel size and better uniformity of kernel color than these two. ✓

## Root Rot in Wheat

WHEAT VARIETIES that will be resistant to root rot are being developed in the Prairies, but in the meantime, scientists of the Canada Department of Agriculture Research Station at Saskatoon say that control should be sought by cultural and crop rotational practices.

Root rot is a costly disease which

shows up in the form of dying lower leaves and rotting of the connection between the crown root and first-formed roots. Sometimes patches of unthrifty plants can be seen but generally the disease reduces yield inconspicuously. Even so, if it cuts yields by 5 per cent the loss in 1963 would be 35 million bushels of wheat. The Saskatoon Research Station suggests that infected land should be taken out of susceptible crops such as wheat and barley for at least 3 years. Immune crops such as flax, rape, and clovers can replace them. A brome-alfalfa forage mixture has a place in such a rotation. ✓

## A Guide to Higher Profits

W. LOBAY, Supervisor of Soils and Weed Control with the Alberta Department of Agriculture, recommends six steps to reduce the heavy toll taken in cereal crops every year by annual and winter annual weeds.

Mr. Lobay reports that in one test, conducted by the provincial department, an infestation of 100 broad-leaved weeds per square yard reduced the yield of wheat by 50 per cent compared to the control plot.

Sticking to recommended good

husbandry practices will give crops the best chance to compete successfully with weeds. It will also ensure that the crops are in good condition for spraying if this is necessary later in the season. Here are his suggestions:

1. Use only sound, well-cleaned and treated seed. This seed has the best chance of early and even germination as well as the best chance of survival.

2. Place the seed in a firm moist seed bed. Pre-seeding tillage should be just deep enough to kill the first crop of weeds. Too deep tillage results in uneven seed germination

# A TRUSTED BRAND

## for modern cattle management

NORTHWEST FERTILIZER . . . the brand that produces bigger yields of forage crops, more pounds of beef per acre.

NORTHWEST FERTILIZER . . . means more hay or silage from your present acres.

NORTHWEST FERTILIZER . . . increases the vitamin A and protein content of forage for faster beef gains, healthier cattle, bigger profits.

NORTHWEST FERTILIZER . . . the brand that stands for quality with modern ranchers.

Made in western Canada - for western cattlemen

# NORTHWEST FERTILIZER

11-48-0

16-20-0

33.5-0-0

27-14-0

23-23-0

82-0-0



NORTHWEST NITRO-CHEMICALS LTD., MEDICINE HAT, ALBERTA

Northwest Fertilizer is distributed by: THE ALBERTA PACIFIC GRAIN COMPANY (1943) LIMITED • FEDERAL GRAIN LIMITED  
NATIONAL GRAIN COMPANY LIMITED • PIONEER GRAIN COMPANY LIMITED • UNITED GRAIN GROWERS LIMITED

# Roll with the best!

## MILD- BUT WITH A SATISFYING TASTE



Smoother rolling—by hand or machine



### Long Distance Magic makes birthdays sing!

Let all the family sing out the good wishes! Such a joyful way to say or hear "Happy Birthday to you." Great idea, too, for congratulations on any occasion. Costs so little—and you'll enjoy it so much.



SAVE—CALL BY NUMBER, STATION-TO-STATION, NIGHTS AFTER 6 OR ALL DAY SUNDAY

## SOILS AND CROPS

and emergence which, of course, makes the crop less capable of competing with the weeds.

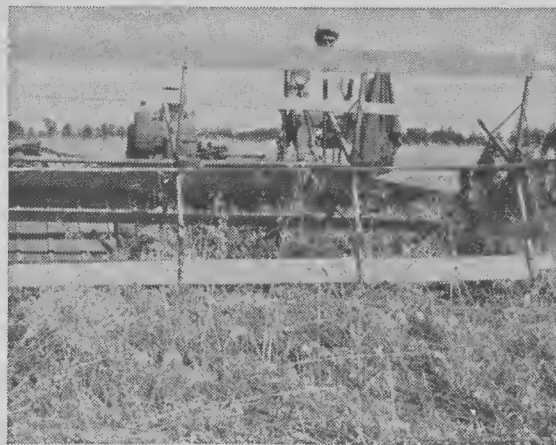
3. Use recommended fertilizer practices. Fertilizers help to stimulate crop growth which again means better weed competition.

4. It may be profitable to increase the seeding rate by as much as 25 per cent on land which is heavily

infested with annual and winter annual weeds.

5. Delaying seeding until two weed crops have been removed by tillage has proved effective in reducing some annuals.

6. Be prepared to spray when the crop is in the safe and resistant stage and the weeds are young and susceptible to selective herbicides. ✓



No more nurse crops!  
When a heavy crop  
of oats goes down  
like this it becomes  
tough competition  
for struggling  
legume seedlings

[Guide photos

## Harvest Alfalfa in Seeding Year

GROWING ALFALFA without a nurse crop may well be the key to keeping forages competitive with corn.

Dr. Stan Young of the Crop Science Department, Ontario Agricultural College, gives this prescription for success:

- Sow recommended varieties — Vernal, Dupuit, Alfa or Narragansett.
- Sow early in the season without a nurse crop of grain.
- Fertilize for high production; 2½ tons can be harvested in the seeding year and this will require 112 lb. of nitrogen, 25 lb. of phosphorus and 112 lb. of potash.
- Eliminate weed competition with herbicides.
- Date of cutting will determine survival of alfalfa. Alfalfa should not be cut after September 1 and should have good top cover to go into the winter. At OAC, cutting on September 13 produced 90 per cent winter-killing while a 30 per cent loss was sustained by cutting October 16.

If this recipe is followed, yields of some 5 tons of dry matter per acre can be expected in the second year; this, if cut at the correct maturity and date, will produce highly digestible, high protein feed.

A variation of this program is practiced by Dr. Jack Roe of Atwood who grows some 500 acres of alfalfa.

Dr. Roe had been sowing alfalfa between August 15 and September 15 with a nurse crop of 1½ bushels of oats. The oats were clipped off in the immature green state before they could compete with the seeding. Last year, Roe tried spring seeding; the seed went in rather late — in June — but, the stand still yielded up to three cuttings in the seeding year. Roe believes that two cuttings should be counted on in the first year, but cautions against over-optimism; temperature and precipitation in the first year, the degree of winter cover and the severity of the winter can all upset the best laid plans.

Roe aims to cut his fields by the time they are in one-tenth bloom. He never cuts during the month of September. Frequent cutting of the alfalfa precludes any weeds going to seed, so no spraying is done. Roe seeds 15-17 lb. of Dupuit to get a close, fine-stemmed stand. The fields get manure from the beef feedlot but no fertilizer is applied at seeding. However, 135 lb. of actual potash are applied after each cutting and 200 lb. of 0-20-20 as a fall dressing. A boron deficiency can be corrected by adding 2 lb. of boron to the potash application.

Roe is still looking for perfection; one field, which soil tests indicated required no lime, actually gave a good response to it.—P.L. ✓



Forage crop  
growing practices  
keep changing.  
This is a trial field  
at OAC in which  
alfalfa and ryegrass are  
seeded in alternate  
rows, without a nurse  
crop. Dr. Stan Young  
advises: "Seed alfalfa  
without a nurse crop,  
and you should be  
able to get 5 tons of  
highly digestible, high  
protein dry matter  
the following year

# Don't Pay Too Much for Hay

SCIENTISTS AT THE Melfort Experimental Farm in Saskatchewan have found that if hay prices are too high, you can formulate satisfactory rations for dairy and beef cattle and sheep using cereal straw, grain, protein supplements, minerals and vitamins.

During the past 2 years, the scientists overwintered beef steer calves on rations containing no hay. One group of 20 was fed each winter on brome hay and barley and one each winter on wheat straw and wheat. The results are presented in the accompanying table.

In addition to the feeds shown, all steers received vitamin A, aureomycin and a mineral supplement, the cost of which is included in the feed cost per pound of gain shown.

Feeds were valued as follows: hay \$20 per ton, wheat straw \$10 per ton, barley \$1 per bushel, wheat \$1.50 per bushel and linseed oil meal \$100 per ton.

The ration does cut costs. For instance, slough hay might cost up to \$40 per ton. Even making the unlikely assumption that it is of the same feeding value as the good quality brome hay used in these tests, its use in this experiment would have increased the feed cost per lb. gain to about 29.89 cents, a figure completely out of line with today's beef prices. This emphasizes the necessity of utilizing available forage wisely. It should help to convince the cattle producer to provide reserves in years when hay is more plentiful. V

**OVERWINTERING RATION**  
(Av. of 2 years' results)

Winter Period 183 days	Brome Hay & Barley	Wheat Straw & Barley	Wheat Straw & Wheat
Total No. steers	40	40	40
Av. initial weight.....lb.	460	456	461
Av. final weight.....lb.	646	644	656
Av. daily gain.....lb.	1.02	1.03	1.07
Feed consumption/head.....lb.			
Roughage	2,018	1,481	1,477
Grain	355	733	923
Linseed oil meal.....	70	225	67
Feed cost/lb. gain.....¢	19.14	18.33	18.87

## Seek Potato Top Killers

AGRICULTURAL chemical companies are racing to find suitable replacements for sodium arsenite to kill potato tops before harvesting, say scientists L. C. Callbeck and C. F. Everett of the Canada Department of Agriculture who, in reporting this development, attribute it to the recent action taken by the Government of Prince Edward Island to control the sale and use of sodium arsenite. This action was taken to protect dairymen from the annual losses caused by the illness and death of cattle from arsenical poisoning.

The researchers report that several products have already been submitted for testing in 1964. However, they also report that growers can use mechanical top beaters for preparing fields for harvesting. They add that in order to avoid losses through tuber rot development in storage, fields where blight has been present may need to be sprayed with a solution of copper sulphate before digging. This kills the spores so that the potatoes will not become infected. V

## Fall Seeded Cover Crops

EXPERIMENTS at the Lethbridge Research Station indicate that oats, which is most commonly used for fall seeded cover crop, give the highest yield of forage for the purpose. It was compared with corn and four winter annuals—winter oats, winter barley, vetch, and winter rape. The four winter annuals produced about equal yields, but slightly less than corn. However, the winter annuals

produced leafy, high-protein growth until freeze-up. Oats and corn grew tall and erect and provided slightly better wind erosion control; they trapped more snow than did the winter annuals which grow closer to the ground.

Of the cover crops tested, oats was shown to be the most suitable for fall pasture and erosion control. Oats had two other advantages: the seed was cheapest and the plant is resistant to wheat streak mosaic. V



Brush killer sprays, applied under high pressure, are used for heavy barberry infestations. Farmer co-operation is essential if barberry is to be located and destroyed

[CDA photo]

## Banishing Barberry

NO WONDER STEM RUST is a problem to farmers and to plant breeders. Thirteen new races of this rust have appeared since 1946. Since the host plant to organisms which create these races of stem rust is the common barberry bush, any control program must take it into account.

Barberry has been successfully controlled in Western Canada and campaigns have been carried on against it in the U.S. since the 1930's. Now, complete eradication of common barberry in Ontario and Quebec is the objective of a recently inaugurated federal-provincial program. The cost of this program is estimated at \$1 million but the stakes justify it. The current loss in the Ontario oat crop due to rust is some \$6 million.

This is only part of the story. There is at present no prospect of developing new rust-resistant oat varieties. Even if such varieties could be developed, the presence of barberry would make it futile. One barberry shrub is sufficient to develop a new rust hybrid and cause localized rust infection.

Stem rust is more than a regional problem in Eastern Canada. Rust spores can drift to any part of the country. Ken Fallis, Ontario Soils

and Crop Branch, points out: "Rust races developed in Eastern Canada find their way into the southerly rust stream; eventually, they find their way back to grain fields of the prairies."

In the campaign against barberry in Ontario and Quebec, spray trucks are dealing with the heavy infestations, while knapsack sprayers are used for small infestations. The locations of barberry are being mapped and areas sprayed this year will be checked for regrowth next year. Only systematic spraying holds any chance of success; when barberry is pulled, regrowth is possible from any roots left in the ground.

Complete eradication will only be possible if interested groups and individuals will notify weed inspectors, in the areas involved, of any barberry patches.

Barberry is not difficult to identify. In winter the bright white berries of the shrub assist in identification. In the spring the underside of the infected leaves have distinctive orange colored spores which are the start of the spread of rust.—P.L. V

Nitrogen fertilizer may hold the key to profitable production of Russian wildrye seed, according to North Dakota research. V

# FARMERS!

**Another First from the NATIONAL 70 Program!**

**National Grain's new Fertilizer Fact Booklet!**

This is the book that you, as a farmer, can't afford to be without. Get your FREE copy today. Just contact your local NATIONAL GRAIN manager.

### Complete Information On:

- Soil types
- Soil Management
- Soil Testing—How to take a soil sample
- How and When to apply
- Fertilizer Recommendations
- What do the numbers on the bag mean? (11-48-0? — 33.5-0-0?)

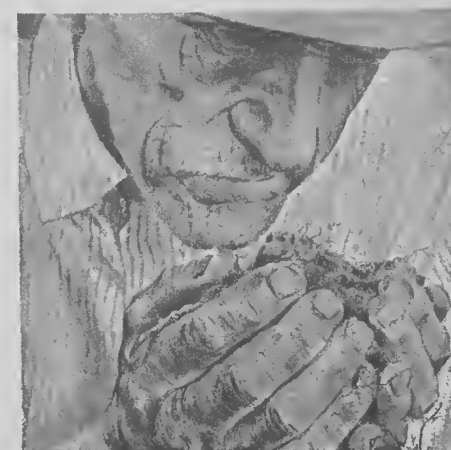
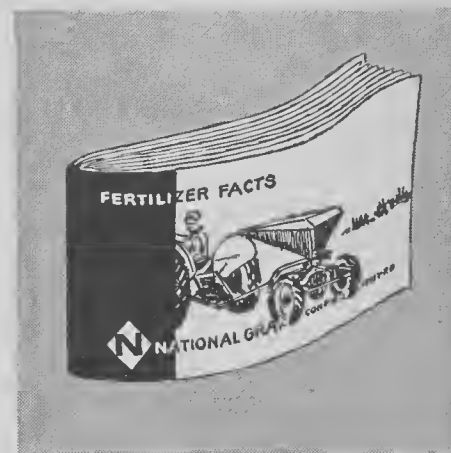
**All this and much more just for the asking.**

Fertilizer Distributors and Western Canada's Major Supplier of Fertilizer Equipment



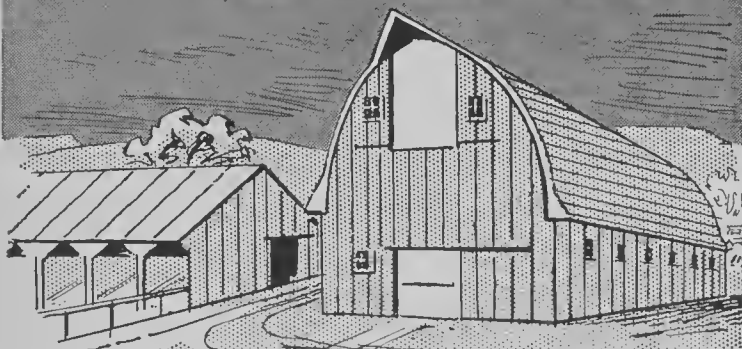
**National Grain Company Limited**

CALGARY • EDMONTON • WINNIPEG • REGINA • SASKATOON





Transform your Farm into a  
Community Showplace  
with WESTEEL  
Galvanized Steel or Aluminum  
ROOFING & SIDING  
in **COLOR**



- ▶ Six attractive colors in various designs to choose from.
- ▶ Stays fresh and new looking for years.
- ▶ Weather-resistant finish: will not peel or blister.
- ▶ Standard trim also available in color.

Westeel galvanized steel or aluminum roofing and siding is available in regular and cut-to-measure lengths in color or standard finish. For estimates see your dealer or write the WESTEEL office nearest you.

"COLORITE" is a process of our  
COLUMBIA METAL ROLLING MILLS DIVISION

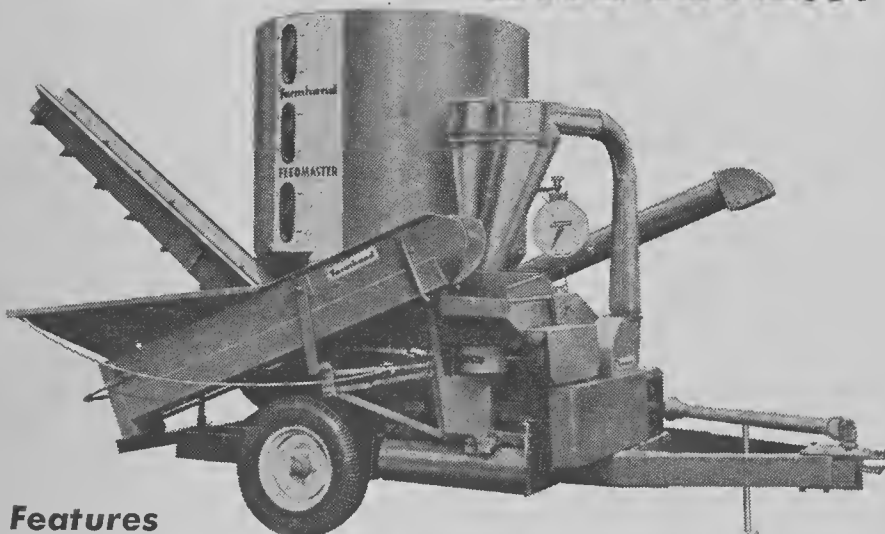


**WESTEEL**  
PRODUCTS LIMITED

An all-Canadian, Canada-wide organization

Plants and Offices: WINNIPEG REGINA SASKATOON CALGARY  
EDMONTON VANCOUVER TORONTO MONTREAL  
Sales Offices at: London, Ottawa, Quebec, St. John, Halifax

# Save on every ton with the FEEDMASTER!



## Features you've wanted —

- 2-ton calibrated tank
- 2-way auger from mill and concentrate hopper
- Wide drop feeder with self-locking support

- 16" mill with 26 reversible hammers
- 3-speed, 10-belt drive
- 12" mixing auger

On-farm grinding and mixing cuts feed costs, saves you hauling and loading time. Feedmaster has more of the time-saving, money-saving features you want than any other grinder-mixer. See for yourself.

### OPTIONAL EXTRA FEATURES

Integrated Sheller (that really works!); Scale for weighing ingredients in, weighing feed out; Blower; Lubrication system; and others. Ask about them.



**Farmhand**  
FIRST IN FARM MATERIALS-HANDLING

**FREE**

Information!

Write:  
**FARMHAND**  
Dept. CG-941  
1270 Sargent Avenue  
Winnipeg 21, Canada  
**FORANO, LTD.**  
Plessisville, Que.  
Distributor for Que-  
bec and Maritime  
Provinces.

Send free information on \_\_\_\_\_  
I am a student, send special material ☐

Name \_\_\_\_\_

Address \_\_\_\_\_

Town \_\_\_\_\_ Prov. \_\_\_\_\_

Division of Daffin Corp. of Canada Ltd.

# Mechanics

## Collapsible Plywood Bins



Collapsible bins  
slide apart without  
the need for  
undoing bolts or pins

[S. M. Simpson photo]

BULK BINS for handling field or orchard produce have been greatly improved since they were introduced in this country a few years ago. The latest development is a returnable container that can be used many times over. This unit can be collapsed for the return trip so that it occupies only one-fifth of the space taken up by an assembled bin.

The bins are made of spruce plywood for strength and lightness. Unlike some woods, spruce does not have strong natural odors which

might permeate the contents. Bin sides are held in place by a simple aluminum fastening device that enables these bins to be assembled or dismantled without the use of tools. There are no pins, bolts, clips or other loose parts that can be lost.

Collapsible bins adapt equally well for shipment by rail, truck or steamship on short local runs or intercontinental shipments. Apples grown in the Okanagan Valley of British Columbia are now being shipped overseas in these bins. V

## Tarpaulins Cut Grain Losses

TESTS DONE BY the Manitoba Department of Agriculture showed that tarpaulins on grain trucks prevent costly grain losses.

Tarpaulins for a typical 2-ton farm truck with a box 8' by 12' cost about \$28. You would need to prevent the loss of only 20 bushels of wheat in one season to recover this cost. Yet the tests show that one truck load of wheat filled to the brim and traveling against a cross wind of 40 to 50 miles per hour could lose the price of a tarpaulin. Look at it another way. If you spend 5 minutes tying down a tarpaulin to a truck, and save 10 pounds of grain per trip, you are being paid at the rate of \$3.60 per hour.

Now a Saskatchewan inventor, Norm Teichreb of Wynyard, has designed a tarpaulin that reduces handling. With this model, the tarpaulin is rolled under a metal canopy at the front of the truck box when not in use and slides into metal runners at the sides of the box when put to work.

In the Manitoba tests, trucks were loaded with grains to various levels in the box and weighed before and after a road trip at varying speeds. They showed that cross winds, traveling speeds, and height of loading in grain boxes are major factors in the amount of grain lost.

Three-quarters of a bushel was lost from a truck loaded to the top with wheat and traveling 40 miles an hour for 8 miles. Two bushels were lost when the same truck traveled at 45 miles per hour. In both these tests, trucks were traveling one-quarter into the wind.

Losses increased greatly when the truck was driven into a cross wind of 18 to 20 miles per hour. Under these conditions, 17 bushels were lost on the 8-mile trip at 30 miles per hour. V

## Pull Type or Self-Propelled Combines?

THE BIG ADVANTAGE of the self-propelled combine is its variable speed drive, and according to H. P. Harrison, director of Agricultural Machinery Administration in Saskatchewan, the pull type combines will not be able to offer equal flexibility until more tractors are equipped with transmissions which will shift on the go with multiple speed selection.

Mr. Harrison goes on to note that the self-propelled combine today has an infinite range of speed while the pull type combine must operate at specific speeds as the tractor is shifted into second or third gear. However, as multiple speed transmissions with on-the-go shifting become more popular the appeal of the self-propelled combine will be diminished. V

## Farm Credit Needs to Double

THOSE WHO are amazed at how much money it takes to run a farm these days probably haven't seen anything yet. At least, this is the prediction of an official of the Farm Credit Administration in the United States. He predicted that the non-real estate debt of U.S. farmers — \$12.7 billion in 1963 — is expected to jump to \$25 billion by 1973. It was \$7.6 billion in 1953. He said that this growing need for credit exists despite a continuing counter trend — a decreasing number of farms.

The situation is almost identical in Canada. Ontario's farm account books indicate that the investment per man on a farm runs in the neighborhood of \$30,000.

No wonder a farmer needs to know today what his investment is doing for him! A carefully kept and well analyzed set of farm accounts is one way to find out. Plenty of policies are available throughout the country to help farmers with this job. For instance, in Ontario, hundreds of farmers co-operate with agricultural economists of the Department of Agriculture in keeping a complete set of records of their farm operations. These records are analyzed and published annually in the Farm Business Analysis Report. The reports are classified according to the major source of farm income as: dairy special, dairy general, steer operations, beef cows milked, beef cows not milked, poultry general, large hog enterprise and cash crop.

These reports contain receipts and expense figures. Any farmer with a set of records can compare his current operations with provincial averages to see the strengths and weaknesses of his business and in so doing identify changes that should be made to make the coming season more profitable. ✓

## Beef Requirements Climbing

ECONOMISTS estimate that by 1975 there will be 226 million people in the United States and the per capita income may increase by one-quarter. Based on these estimates they predict that the demand for beef will increase by 50 per cent. The increase in proportion of cattle fattened in feedlots also is expected to continue upward. In 1950, 40 per cent of the cattle for beef were fattened in feedlots; in 1962 it was 55 per cent; by 1975 it is expected to be about 75 per cent. ✓

## Heavy Investment in Alberta Farms

A REPORT FROM the Farm Economics Branch of the Alberta Department of Agriculture dealing with a farm business analysis of 25 farmers in the County of Sturgeon indicates how much capital is required to farm today in that prov-

ince. The average capital investment of the 25 farms involved in the Sturgeon Farm Business Association was \$105,300. It varied between a high of over \$182,000 to a low of about \$28,000.

Len Bauer, agricultural economist in charge of compiling the data, says the report shows that intensive farming such as dairying and hog raising was more profitable

in 1963 than straight grain farming or cow-calf operations. Part of the reason for the intensive type of farming being more profitable is due to high land values resulting from the farms being close to Edmonton.

The average operator received a return of \$1,500 for his work and management. These were his labor earnings after he had paid all

operating costs including a 5 per cent interest charge on his capital investment. Labor earnings on the 25 farms ranged from a high of \$5,500 to minus \$2,500. Mr. Bauer points out that these figures should not be taken as representative of Sturgeon County. Members of the Association, he said, are inclined to have above average business ability. ✓



## Doorway to all your banking

Did you ever stop to consider all the things a chartered bank can do for you? Your local branch is much more than a convenient place to make a deposit, cash a cheque or see about a loan — each branch, large or small, offers a full banking service. And only here is it possible for you to do *all* your banking under one roof. A branch bank is, in effect, a service centre and everyone on the staff is there to help you, to look after *all* your banking courteously and speedily.

### THE CHARTERED BANKS SERVING YOUR COMMUNITY

*Through 5,650 branches, all across Canada, the chartered banks bring full-range banking within the reach of everyone.*

## Weed Control in Shelterbelts

CHEMICALS BEING TESTED on demonstration plots at the Regina, Sask., Experimental Farm promise to take a lot of work out of maintaining weed-free shelterbelts. In addition to Simazine, a chemical which has been in use for several years, plant physiologist Dr. Raj Grover is testing 10 new chemicals applied at 2, 4 and 6 pounds per acre. This plot testing is combined with field demonstrations throughout Saskatchewan.

On these tests Simazine is applied at 4 to 6 pounds per acre on established stands, and 2 to 4 pounds per acre on new plantings. Results were generally good on established stands. However, Simazine is not now recommended for new plantings. It has also been found that the use of Simazine in the fall is less damaging to trees than it is in spring.

Simazine is recommended for the following trees that have been estab-

lished for one growing season, or more: box elder, carragana, green ash, white spruce, blue spruce, American elm and Siberian elm. It may be applied as a dry powder, or as wettable powder used with spray equipment. It is recommended for annual weeds only; it does not usually destroy perennial weeds or grasses with well-established root systems.

Because the chemical is taken up by plant roots, results depend considerably on rainfall, weed growth at the time of application and weed types. If rainfall is scanty, the chemical may not reach the roots of the weeds before they mature, or if weed growth is well established at the time of application, weeds may mature before they can be destroyed.

Several of the newer chemicals will be tested along with Simazine in field tests next year. Amazine, another partial sterilant, combines Simazine with a chemical to kill top growth of weeds.

Simazine applied alone must be used on clean land. While it has generally been applied at approximately 4 pounds per acre, Dr. Grover's tests indicate adequate control using 2 pounds per acre. At 6

pounds per acre, weed control is not much better than at 4 pounds and more damage to trees is encountered.

Dr. Grover points out that since moisture supply and soil type influence the amount of chemical required, downward movement of the chemical is faster in lighter or more sandy soils than in heavier soils. Indications are that 2 pounds per acre might be adequate under light soil conditions. However, near normal rainfall would be needed to obtain best control with the 2-pound application. Soils high in organic matter also require a heavier application.

Saskatchewan farmers receive government grants of \$16 for each mile of shelterbelt weeded for each of 3 years. After the first 3 years, shelterbelts are able to crowd out weed growth on their own. With the use of a partial sterilant Dr. Grover hopes to control weeds without machine or hand weeding at a cost below \$16 per mile annually. At recommended rates, a 3-foot strip application of Simazine in wettable powder form costs about \$7 per mile; using the granular form the cost is approximately \$15 per mile. V



If a new truck or tractor—or both—would lighten your workload and increase your farm's efficiency, your Bank of Montreal manager is a good man to see.

For purchases that mean profits, a B of M Farm Improvement Loan is often the best means of getting the required equipment working for you in short order. If your proposition is sound, there's money for you at the B of M for any type of farm equipment... at low cost and on terms suited to your income.

So why not put that new truck, disc harrow or side rake to work soon—see your nearest B of M branch today!



**BANK OF MONTREAL**  
*Canada's First Bank*

WORKING WITH CANADIANS IN EVERY WALK OF LIFE SINCE 1817  
D338



Chemicals under test by Regina Experimental Farm for weed control in shelterbelts show considerable promise. Simazine applied on light soil with good moisture conditions at 2 lb. per acre produced the results pictured above

## Cultivate Strawberry Beds after Harvest

STRAWBERRY BEDS should be renovated immediately after harvest to prepare the plants for next year's crop say horticulturists with the Ontario Department of Agriculture. They recommend thinning rows to 8 or 10 inches in width by hand tools, rotary hoes or garden tractors. Plant tops should be mowed off with a rotary mower set high enough to avoid damage to the crowns. Old foliage should then be raked off and destroyed.

Once weeds have been removed and thinning completed, apply a commercial fertilizer such as 10-10-10 at the rate of 1½ to 2 pounds per 25 feet of row. Spread the fertilizer on the soil around the plants or over the dry foliage and immediately brush off. Watering will help to carry the fertilizer to the plant roots.

Shallow cultivation should be carried out between the rows during the remainder of the summer. It

may also be necessary to trim off runners that grow between the rows. V

## Order Bulbs Now for Spring Blooming

IT'S TIME to order flowering bulbs such as tulips, lilies and peonies, according to C. W. Carlberg, of the Swift Current, Sask., Experimental Farm. He recommends that tulips be planted 9 inches deep in light soil, and about 6 inches deep in heavy soil. If you find yourself planting tulips in late October, he suggests a mulch of peat moss or hay to keep the ground from freezing before the bulbs root.

Lilies should be planted from 7 to 10 inches deep, depending on whether they are base rooting or stem rooting. Peonies, like most perennials, should be planted in a well-prepared soil with root buds no more than 2 inches deep, otherwise the plants will not bloom. V



# Poultry

## Egg Industry Grows

ALTHOUGH the egg industry is one of the fastest growing segments of agriculture, this very growth is having a profound effect on markets, according to A. D. Davey, Director, Poultry Division, Canada Department of Agriculture.

At one time, he says, eggs could be produced in any part of the country and a market could be found for them. That situation is now changing. Egg sheds are springing up around consuming centers from which eggs can be gathered to feed the consumers in those centers.

Mr. Davey refers to Nova Scotia where, at one time, small flocks

throughout the province sold their eggs to Newfoundland and throughout the Maritimes and found a market for surplus eggs in Montreal. Today that situation is different. Newfoundland is almost self-sufficient. Quebec is rapidly moving in this direction. Thus Nova Scotia producers are now producing far beyond their own needs and they are running into problems. V

## Nitrate Poisoning

NITRATE POISONING of turkeys can be prevented by feeding vitamin A in the ration, says M. L. Sunde, poultry scientist of the University of Wisconsin. High nitrogen

in crops that go into poultry feeds has brought the nitrate problem to the poultry industry—to turkeys in particular. First signs of the disease are lack of balance, rapid breathing, secretion of saliva and retarded growth. As poisoning progresses, the poult gets thin and dehydrated and many of them die. In the feeding trials, Sunde found that vitamin A added to the feed is a good preventive. V

## More Broiler Turkeys

ALTHOUGH THE BROILER turkey business has been satisfactory in recent years in Western Canada, orders for broiler poult are increasing at such a rate that this industry is sure to become as overcrowded as heavy turkey business. This is the view of Ben Brown, Chinook-belt Turkey Hatcheries Limited, Calgary. Brown says that the broiler turkey has replaced the heavy roasting chicken. There is a good weekend market for it because birds weighing 7 to 9 pounds offer the housewife two good meals of turkey over the week end. Brown believes that prairie producers cannot hope to ship birds to other regions. The needs of British Columbia can be met by imports from the northwestern states while Eastern Canada can get birds from the corn belt. V

# Workshop

## Gate Latch

A simple gate latch can be made from a 5" wide T hinge. A V is cut in the triangular part of the hinge as shown in the illustration. The hinge is then attached to the post with screws. The latch must be placed at an upward angle and lean on the gate. To open the gate lift the latch.—J.J.R.M., Alta. V



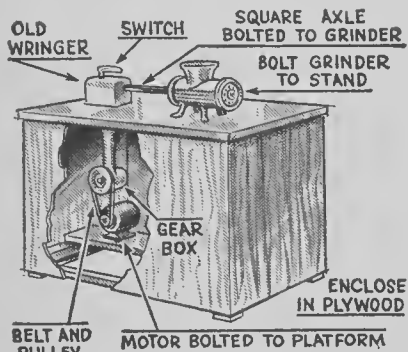
## Chewed Tails?

SUSPEND HALF OF OLD TIRE FROM CEILING



If you hang a piece of tire from your hog pen roof you will find that your pigs will prefer chewing it rather than their neighbor's tail. — J.W., Alta. V

## Meat Grinder



By utilizing the gear mechanism from the wringer assembly of our old washing machine I made a gear box for my homemade meat grinder

which provides stop, forward and reverse action. The grinder is driven by an electric motor through a set of reduction gears. The grinder itself is bolted to the top of a closed-in table as shown. This grinder is particularly useful for sausage making.—J.A.L., Sask. V

# "GILLETT'S helps take care of our disease worries"

Sanders Poultry Farms Ltd., Cloverdale, B.C. are the distributors of Shaver Starcross chicks for the Fraser Valley.

In hatching 300,000 valuable chicks annually, cleanliness is uppermost in the minds of Sid Sanders and son Mickey.

"Gillett's Lye plays an important role in our hatchery business," says Sid. "Particularly in the rearing pens where ready-to-lay pullets are raised. You need have little worry about disease and parasites if you use plenty of Gillett's Lye. Just follow the directions."

For efficiency and economy, for all 'round cleaning and sanitizing, there's no better buy than Gillett's.



In Regular Size and Money-Saving 5 lb. Cans

## FREE!

60-page booklet prepared by an eminent Canadian Bacteriologist outlines effective, economical sanitation practices which can save you time and money. To get a copy, write: Standard Brands Ltd., 550 Sherbrooke St. W., Montreal.

## Durability With Smart Good Looks



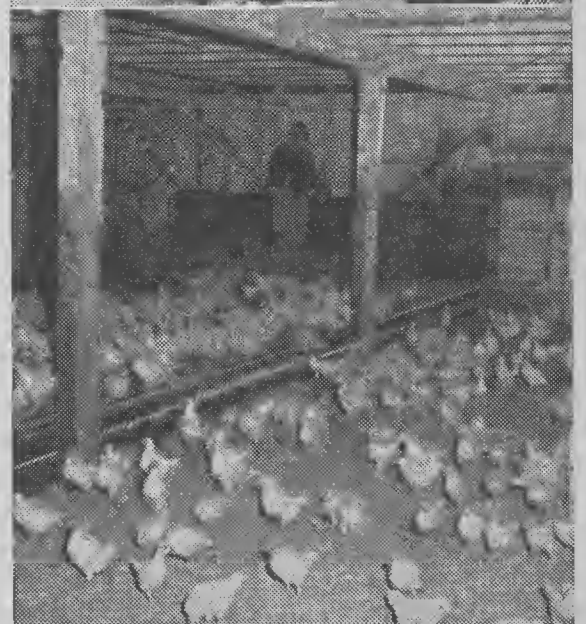
# "Texas Ranger"

## Matched Outfits

"They Wear Longer Because They're Made Stronger"



THE GREAT WESTERN GARMENT CO., LTD., EDMONTON



**MONEY BACK GUARANTEE**

## THE BEST MASTITIS TREATMENT YOU'VE EVER USED



NFZ Ointment is "unconditionally guaranteed" to be the best Mastitis Ointment you've ever used. If you don't agree, your money will be cheerfully refunded. NFZ Ointment contains the new, more powerful chemical NITROFURAZONE that kills a broader range of mastitis germs faster. Since mastitis germs do not develop resistance to NFZ, it works where out-dated antibiotics have failed—it's far more dependable. Try it today and see for yourself how quickly it acts to clean up even the most difficult cases.

Single treatment costs only \$1.00, herd pack 6 tubes for \$5.00, farm pack 12 tubes \$10.00.

Available from Your Local Dealer

**VIOBIN (CANADA) LIMITED**

St. Thomas, Ontario

Vancouver, B.C.

### Snow Blower



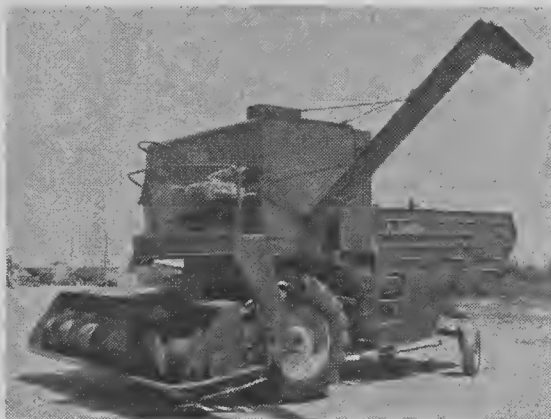
The Snow-Bee self-propelled, walking-type snow blower comes in both 4 h.p. and 6 h.p. models. These blowers can be adjusted to throw snow in any direction and are powered by Briggs and Stratton engines with winterized ignitions for cold weather starting. (Allis-Chalmers Mfg. Co.) (478) ✓

## What's New

### Grinder-Mixer



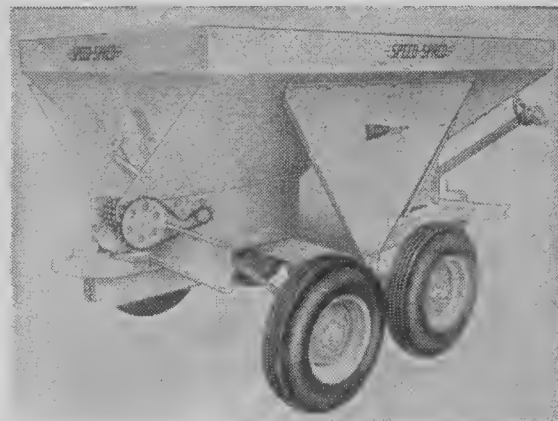
The new, lower-cost Model 340 Grinder-Mixer by New Holland has a mixing tank capacity of 3,000 lb. and is fully portable. The heart of this Grinder-Mixer is a high-capacity hammer-mill which grinds anything from the finest hog feed to the coarsest cattle feed. Swivel spout auger and magnet to protect mill hammers from metal particles are optional. (Sperry Rand Corporation.) (479) ✓



### Combine

The 42" cylinder of this low priced combine is fed by using three beaters. It is available as a PTO or engine-driven pull type, or, self-propelled. (Versatile Mfg. Ltd.) (480) ✓

### Fertilizer Spreader



A built-in "flow control" on this fertilizer spreader reduces the tractor power needed to pull it. An operator can control the amount of the 3-ton load exposed to the conveyor, reducing the amount of drag considerably. For non-PTO operation a gasoline engine is optional. (Calhoun Mfg. Co. Ltd.) (481) ✓



### Yield Scale

The portability and simple operation of this scale makes it ideal for weighing crops as they are harvested, particularly where variations in plant varieties or treatment make accurate yield determination desirable. The unit is powered by longlife mercury batteries and has an accuracy of 0.5 per cent. (Radson Engineering Corp.) (482) ✓

## "How CCC puts profit in your pocket."

Money saved is money earned - and CCC Plans can put profit in your pocket! Learn how to cut time and costs, with buildings that insure total usable space and versatility at lowest initial cost. Pole-type economy and lasting satisfaction are yours with anti-rot CCC Pressure-Treated Poles and Lumber. See for yourself - ask your lumber dealer for the CCC Plans Catalogue, or write us direct.

CANADA CREOSOTING DIVISION OF



**DOMTAR**

Domtar Chemicals Limited, P.O. Box 1255, Calgary, Alta.

For further information about any item mentioned in "What's New," write to WHAT'S NEW, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

# GUARANTEED FAIL-PROOF BAKING RESULTS

WITH  
FIVE ROSES FLOUR  
any time you bake, every time you bake!



Canada's Golden West is Five Roses Country. That's where the finest wheat in the world is grown. It's the wheat Five Roses uses to mill its flour. Number One Canadian Hard Spring Wheat. Choice, firm, plump kernels. The kind with the best baking

characteristics. The result — flour as perfect as modern milling methods can make it. So perfect we can confidently make this statement: *Five Roses Guarantees you fail-proof baking results, any time you bake, every time you bake.*



## CINNAMON NUT ROLLS a tested favourite from the Five Roses Kitchens

3 cups Five Roses	½ cup sugar	1 teaspoon cinnamon
Pre-sifted Flour	½ cup milk	¼ cup melted butter
¼ teaspoon salt	2 eggs, beaten	½ cup brown sugar
3½ teaspoons baking powder	½ cup melted butter	¼ cup chopped nuts
	½ cup sugar	¼ cup melted butter

Stir Five Roses Flour, salt, baking powder and sugar together. Combine milk, eggs and ½ cup melted butter; add to dry ingredients and mix well. Place on lightly floured board and knead lightly 10 times. Roll into a rectangular shape, ¼ inch thick. Mix ½ cup sugar, cinnamon and ¼ cup melted butter; spread over dough.

Roll dough as for jelly roll, seal edges and cut into ½ inch slices. Combine remaining three ingredients (brown sugar, nuts, ¼ cup melted butter) and sprinkle lightly over bottoms of greased muffin pans. Arrange slices, cut side down over this mixture. Bake in a moderate oven (375°F.) 25 — 30 minutes. Turn pans upside down on cooling rack and lift off rolls. Serve hot. Note: Rolls may be stored in pans in refrigerator overnight and baked in the morning. Yield: 16 rolls.

**FIVE ROSES FLOUR**  
CANADA'S MOST RESPECTED NAME IN BAKING



## Homemakers' Hints

When heating a small portion of pudding, put it in a dish and set in another dish of water, and cover. It saves using a large steamer. — Mrs. Will Nesbitt, Woodville, Ont.

Take thumb tacks along on picnics and use them to keep paper plates on the picnic table. This way wind cannot blow them away. Tack your tablecloth down too.—M.M.P., Flowing Well, Sask.

I wash our windows with two parts of water to one part of household ammonia. It works wonders in keeping the flies away. — Mrs. F. W. Anderson, Seandia, Alta.

Carry a plastic bag in the diaper bag for soiled diapers. By cutting off the 2 bottom corners you can even make an emergency pair of waterproof pants from it.—Mrs. E. G. Zelter, Lampman, Sask.

I use a pastry blender to slice hard-cooked eggs quickly.—Mrs. M. Atchison, Findlay, Man.

To clean under low dressers, I take out bottom drawers and use the vacuum cleaner through the opening. This prevents damage to the floor, carpet or back by lifting heavy furniture. — E. C. Baird, Horse Head, Sask.

Use an old-fashioned butter ladle when mixing a large fruit cake or anything that is too heavy to stir with a spoon. — Mrs. John Linton, Englehart, Ont.

Solid-packed canned foods, such as meats, can be removed more easily from the can by punching a small hole in the can bottom. This allows air to enter and the contents will slide out whole, with just a gentle shake.

To keep rain from splattering dirt from my window boxes on the window above, I layer coarse gravel over the earth around the plants. This saves extra work cleaning glass. —Mrs. P. B. Weekes, Biggar, Sask.

Make a pattern file by pasting the pages of a scrapbook together in pairs, leaving the tops open. Slip a pattern in each folder and paste the pattern picture on front. — Mrs. Clarence Mennie, Clarence, Ont.

I keep dill handy all year by freezing it. First wash thoroughly, then chop finely, pack into ice cube trays, fill with water and freeze. To add fresh dill flavor to foods, just thaw a cube.—Mrs. Peter W. Friesen, Rosthern, Sask.

We're all interested in a better, quicker and easier way of doing household tasks. Country Guide pays \$1 for each original hint published. We cannot accept previously published hints or return unused ones. Only those accompanied by a self-addressed, stamped envelope can be returned. Letters of comment are welcome; however, no payment is made for letters of comment or recipes.—Ed.



## This year, save the flavour (and your money, too) with Certo

Make this year something special in the jam-and-jelly department. Put up some new varieties—peaches, plums, as well as your own locals—and remember to put up lots (after all, nothing tastes better than the jam you make yourself). Remember to add the Certo too. By adding Certo fruit pectin, you get up to 50% more jam or jelly. And Certo locks all the goodness in with its flavour-saving 1 minute boil.



Use Certo Liquid or Crystals with all your preserving fruits.

### PEACH ALMOND JAM

Yield: about 11 medium glasses (5½ lbs. jam)

- 4 cups prepared fruit (about 2 qts. ripe peaches)
- ½ cup chopped almonds
- ¼ cup lemon juice (about 2 lemons)
- 7 cups (3 lbs.) sugar
- 1 bottle Certo fruit pectin
- ¼ teaspoon almond extract

*First, prepare the fruit.* Peel and pit about 2 quarts fully ripe peaches. Grind or chop very fine. Measure 4 cups into a very large saucepan. Chop the almonds and measure ½ cup almonds into the saucepan with the peaches. Squeeze the juice from 2 medium size lemons. Measure ¼ cup juice into saucepan with peaches.

*Then, make the jam.* Add sugar to fruit in saucepan, and mix well. Place over high heat, bring to a full rolling boil, and boil hard 1 minute, stirring constantly. Remove from heat and stir in Certo fruit pectin and almond extract. Skim off foam with metal spoon. Then stir and skim by turns for 5 minutes to cool slightly, to prevent floating fruit. Ladle quickly into glasses. Cover jam at once with ⅛ inch hot paraffin.

Note: This jam may set slowly — allow about 2 weeks.



# the bittersweet

by WANDA J. LUTTRELL

LOOKING OUT THE WINDOW at the new-green shoots, Hiram saw for the first time something that he had never expected to see.

He straightened, one hand to the small of his back, and glanced down the seemingly endless rows of thick, green stalks with their wide, velvety leaves. The healthy plants stretched up all around him, reaching out to overlap above his head.

"Best tobacco in the country," the new assistant county agent had called it. Hiram snorted. He didn't need some smart aleck university boy to tell him that. He had labored and sweated to make it best with almost unbearable weariness in every inch of his lean, unstooped, six-foot frame.

Hiram dreaded the coming cutting and housing. Each year it became harder for him to lift the heavy sticks that he had once swung almost effortlessly. But when the crop was in the barn, the work would ease off some.

After his tobacco had cured to the usual golden-brown silkiness that reminded him of the dress Rebecca had worn for their wedding a lifetime ago, he would bulk it for stripping. Then, another year's struggle would be won.

If John were alive, Hiram thought for perhaps the thousandth time, he could have retired long ago. Sometimes he wondered if the land knew it would defeat him eventually. There would be no one to keep it in subjection after he was gone.

If John were here . . . but Hiram refused to let the old bitterness sweep over him. The boy was dead and that was that.

Hiram didn't believe in this life after death thing that Rebecca had been so sure of. He wished he could believe he'd see them again—his wife and son. But Hiram had never been one to believe.

He rubbed his hand over his eyes. It should be enough to know that this rich, green burley was the result of his long spring and summer

of work. At seventy-six, Hiram couldn't be sure when he started a crop that he'd be there to finish it. But John had been sure at thirty-four and it hadn't protected him against a heart attack.

John's wife, Laura, had followed him within two years. She had left behind an orphan girl of six for Hiram and Rebecca to bring up.

Rebecca maintained that her daughter-in-law had died of a broken heart, but Hiram scoffed. People didn't die of broken hearts.

Now there were three graves on the hill. Rebecca had loved the wood. He recalled her words clearly. "It's a quiet place where I can be alone with myself and with God." He had understood when she wanted John laid to rest there.

"We still have what we started with, Hi," she had comforted him, "and little Laurie besides."

Now he had only Laurie. It was six months now that the girl had stuck with him on the lonely farm, doing the chores her grandmother had done. Most girls her age, with a high school diploma, held office jobs in town. Sometimes Hiram asked gruffly if she didn't want a life of her own.

"I wouldn't know what to do without a wicked, old crosspatch to keep me on my toes," she always teased. Her blue eyes, Rebecca's eyes, struggled to hide her laughter.

He was grateful for her words, making it seem that he was the needed one. He knew who would be lost if the slim, dark-haired lass should take him up on his half-hearted offer.

SHE LOOKED SO LIKE REBECCA at times that it made him ache to look at her. Still, a granddaughter, however loved, couldn't fill the aching emptiness that his wife had left. Nor could she carry on for him when he had to give up the struggle against the land.

He squinted at the darkening summer sky and pulled a watch on a leather strap from his pocket. Then he cocked an ear expectantly toward the house. As though on cue, he heard a car pull into the driveway.

Hiram smiled grimly. Right on time. Whatever he thought about Clay Adams' ability as a farmer, or as assistant county agent, he was punctual. It wasn't that he didn't like the boy. But like as not he'd be proposing to Laurie one of these days.

Hiram wondered what he would do if his only link to the present left him. Take to living entirely in the past, he supposed.

He finished the row. Then, since he was at the far end of the field and could see no reason for making a useless trip back, he topped another row on his way to the barn.

"Grandpa!" He heard Laurie's impatient call.

"Comin', honey," he called. It wouldn't do to keep her waiting. Besides, that college boy was probably drooling over the mashed potatoes and smoked ham.

Laurie's eyes were shining. Her cheeks were flushed, like Rebecca's used to be after a day of baking in the old wood range. Hiram smelled the aroma of the pie, but he knew the electric stove hadn't caused the flush on his granddaughter's face.

Clay held his hand out to Hiram.

"Howdy, Mr. Mitchell," he said a little too loudly.

Hiram stared into the gray eyes nearly level with his own and ignored the hand. "Humph!" he said. "Sit down, boy. I ain't aimin' to whip you—not until after supper, anyway." He caught Laurie's conspiratorial glance at Clay. "All right, you two," he demanded, "what's goin' on?"

"Well, sir," Clay began hesitantly, glancing toward Laurie beseechingly.

(Please turn overleaf)

Laurie came to Hiram, her smile wide on her lips and in her eyes. "We're goin' to be married, Grandpa," she almost whispered, tiptoeing to throw her arms around his neck.

"Humph!" Hiram said again as he untangled her arms. "And just when's this marryin' comin' off?" he asked sourly.

"You ain't fixin' to leave me by myself through the winter, are you gal?" he asked querulously, "with nobody to cook hot meals and all?"

The boy and girl laughed, as though in relief. "Don't be such a crosspatch, Grandpa," Laurie scolded gently. "We're aimin' to live here, if you'll have us."

Hiram forced the frown from his face. The girl was entitled to a life

of her own. He had known she would marry someday. Maybe it wouldn't be so bad with them planning to live on the farm with him.

LAURIE WAS MARRIED on Christmas Eve in the chapel, wearing her mother's white dress. She looked so much like her grandmother that Hiram, as he walked down the aisle with her, had to keep reminding himself that two generations stood between this and that other wedding day.

That night, at the insistence of the young couple, Hiram helped them trim the tall cedar.

Hiram found his gaze seeking Rebecca's rocking chair again and again. Christmas shouldn't be a

time of sadness. But, it never would really be Christmas without Rebecca.

Now Laurie was leaving. Maybe not physically, but she belonged to her husband now. He must be careful not to intrude his loneliness in their young lives.

So Hiram laughed and joked and toasted the newlyweds in eggnog and went to bed. But he couldn't sleep. It was his first Christmas alone.

The next afternoon he took two bouquets of cedar and red and orange bittersweet tied carefully with red satin Christmas ribbon and climbed the hill behind the house. He hadn't missed sharing Christmas Day with Rebecca in all the years of their marriage.

Hiram placed the smaller bouquet on the grave of his daughter-in-law. John would have understood. Bouquets were for women.

The larger one, he laid near the shiny new stone. Bittersweet had been one of Rebecca's favorites.

Hiram sat down on the mossy ground, leaning back against the side of the double stone that read, "Hiram Baker Mitchell, March 3, 1888—"

A drizzling rain began to fall. It had rained the day they were married; he remembered. He found himself thinking of the vows they'd exchanged that day. They'd kept them, too, through sickness and health and all the rest.

There was John's birth when he'd nearly lost her. Then, the year Hiram had pneumonia, she had pulled him through despite the doctor's dire predictions.

There had been years when crops failed and those years brought lean Christmases.

There had been years of plenty, too, when they'd eaten high on the hog. They had shared it all, the good and the bad, and even John's death had been easier to bear because of it.

"The Lord giveth and the Lord taketh away," he could almost hear her whisper the words. "We must not be bitter, Hi," she'd said. "We had him for thirty-four wonderful years."

He'd had Rebecca for nearly sixty years. Still he couldn't be anything but bitter that she was gone.

He rubbed his hand over his eyes. The drizzle penetrated his inadequate jacket. The ground where he was sitting was cold and damp, but he didn't notice.

Birth and death, being young and green as tobacco seedlings, growing old and mellow like the cured leaves, they had seen it all. To save his life, Hiram couldn't picture Rebecca as an old woman. In his memory her hair was dark and shining, her face unlined, and her eyes and smile as bright as the day he'd first seen her.

Now all that was left of her was this mound of earth, her memory, and this stone with the words from John 3:16 she had put so much faith in. Hiram read the promise, whispering the words under his breath, "For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life."

He heard Laurie calling him and stood up stiffly. He rearranged the bittersweet slightly, his lips forming a silent endearment. Then he stum-

bled down the hill, shaking now with cold.

"Grandpa!" Laurie scolded as soon as he reached the house, "You're soaked to the skin!" Against his feeble protests, she hustled him to bed with a hot water bottle at his feet. That was all he remembered.

Vaguely he recalled old Doc Benson examining him. He heard Laurie's sobs and was conscious of a deep pain in his chest. Once he thought he caught the word "pneumonia." The present merged with the past.

"Don't worry, Rebecca," he tried to comfort the sobbing woman. "I'll be all right. Don't you remember? You pulled me through." It didn't seem to help, for the sobbing increased.

Then he realized with a new sense of loss that Rebecca was gone. He opened his eyes. It was Laurie bending over him anxiously. Dear child. She looked tired. He smiled at her weakly and heard Doc Benson say, "He'll be all right now."

Soon Hiram was up and around the house again. Outside the living-room window, fields and buildings were covered with snow.

THEY NEVER MENTIONED how close they came to losing him, but Hiram sensed a new awareness of his needs. He was never alone for long.

Winter gave way to spring. It was time for tobacco beds and Hiram did not venture outside the house.

Finally Clay asked him about gassing the beds instead of burning them. The university recommended it, he explained.

"Go ahead," Hiram said listlessly. "I ain't aimin' to start somethin' I can't finish."

He knew his attitude caused them concern, but he couldn't help it. Doc Benson had pronounced him sound in body, but he felt none of the zest of the old challenge. He was, he admitted to himself, waiting to die.

Day after day he sat looking out the window where he could see the white canvas of the beds near the yard fence. He sat listening to the buzz of the tractor packing the earth in his best field.

He watched the crowded, new-green shoots stretch and grow. Clay hadn't been near the beds for several days, Hiram reflected impatiently. Finally it seemed that the plants would burst the canvas in their eagerness.

Suddenly a thought hit Hiram with such force it all but knocked the breath from him. Why hadn't he seen it before? In all his years of farming, why hadn't he recognized the truth?

The house was all at once too small to hold him and he ran into the yard. From there, it was as though a magnet drew him to the plantbeds. He knelt in the loose soil and his hands shook as he reached out to touch the softness of the sturdy plants.

He recalled the words on Rebecca's stone, "... whosoever believeth in him should not perish..." Surely she, who believeth with all her heart, had just such a new, everlasting existence somewhere.

Hiram felt a quietness, a peace filling what had been emptiness inside him. When he returned to the house, he knew Rebecca's rocking chair would still be empty. But never again would he be alone. V

## Yes, The Bible Is a CONFUSING Book!

This statement will shock those who feel qualified to interpret the Scriptures for themselves.

They may reply that anyone honestly seeking to "search the Scriptures" will have the infallible aid of the Holy Spirit.

But how can this be true when equally sincere people... all presumably aided by the Holy Spirit... arrive at conflicting conclusions? How can it be true when doctrinal differences divide nominal Christians into numerous sects? How can it be true when eminent scholars disagree sharply on basic Bible questions?

Scholars who devote their lifetime to the study of the Scriptures are the first to admit the difficulties that beset them. They know the inspired writings are *not* the clear and easy guide to Christian understanding that so many seem to think. If they were so clear and easy to understand, there would be no need for scholarly inquiry—no excuse for a divided Christianity.

The mere words of the Bible do not always accurately reflect the meaning of their authors. They must be understood in the light of the times in which they were written... in a knowledge of the symbols and language forms they employed... and with a recognition of the need to determine what was meant to be literal and what was meant to be figurative. Who of us has this required knowledge?

The earliest Bible manuscripts, in fact, could have been confusing even to the people of those times. The Old Testament writings—largely in Hebrew—had no spacing between words, no vowels in the text, no punctuation and no capitalization. The vowels had to be supplied from memory! Spacing of words or the insertion of various vowels could markedly change the sense of the words.

But in those times the faithful did not attempt to interpret Scripture for themselves. For the Jewish people in the pre-Christian era, the Synagogue was their voice of spiritual authority; and the Old Testament was preached to them by the Rabbis and fathers of their faith. In like manner, the Catholic Church was the custodian of the inspired writings of the New Testament; and its priests and teachers were authoritatively preaching the New Testament Gospel nearly four centuries before these writings were collected into a single book and formally declared to be inspired.

Today... after nearly 2,000 years... Catholics the world over still listen to only one authoritative voice—the Church—in the interpretation of God's Word. If you want to know more about the Bible—how and when it was written, how to read it with best results, its good and bad translations... write today for our free Pamphlet No. CY-22. We'll send it immediately; nobody will call on you.

### FREE—Mail Coupon Today!

Please send me Free Pamphlet entitled "But Do You Really Understand The Bible?"

CY-22

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Prov. \_\_\_\_\_

**SUPREME COUNCIL  
KNIGHTS OF COLUMBUS**

RELIGIOUS INFORMATION BUREAU  
582 SHERBOURNE ST., TORONTO 5, ONT., CANADA







Fortunately—a Singer *zigzag* sewing machine  
does a lot more than embroidery...

... for instance, it sews buttons on — to stay! So if you've been thinking a *Singer zigzag* sewing machine is used mostly for fancy stitches, see (below) how it sews the button on young Henry's shirt! Nothing fancy about it!

True, Singer zigzags do many fancy stitches. But they're also quick and efficient for darning, mending, making buttonholes, hemming, overcasting. Straight stitching too.

You'll save countless hours on family sewing jobs, with your

Singer zigzag. Or when you feel creative, you'll do exquisite decorative stitches — *automatically*! Just dial the stitch you want, to monogram linens, to give skirts or drapes an expensive, original look — all kinds of artistry.

A superlative zigzag is the Singer 411 Slant-O-Matic\*. The name "Slant-O-Matic" comes from: *Slant* Needle — exclusive with us, to let you see what you're sewing — and *Automatic*. This marvelous machine even bastes for you, with its exclusive Chain Stitch feature. It's light but sturdy,

for years of quiet, smooth performance.

At Singer, you'll find a dazzling choice of sewing machines, from economy models for families or beginners, to the splendiferous Touch & Sew\* with the Push-Button bobbin that winds itself. See all our handsome cabinets too, at the Singer Sewing Center.

You may also find things you didn't expect. Washing machines and dryers and typewriters and vacuums and floor cleaners and the finest small appliances and come in soon, won't you?

Ask about convenient Singer

credit, too — and famous Singer service, available just about any where in the world.

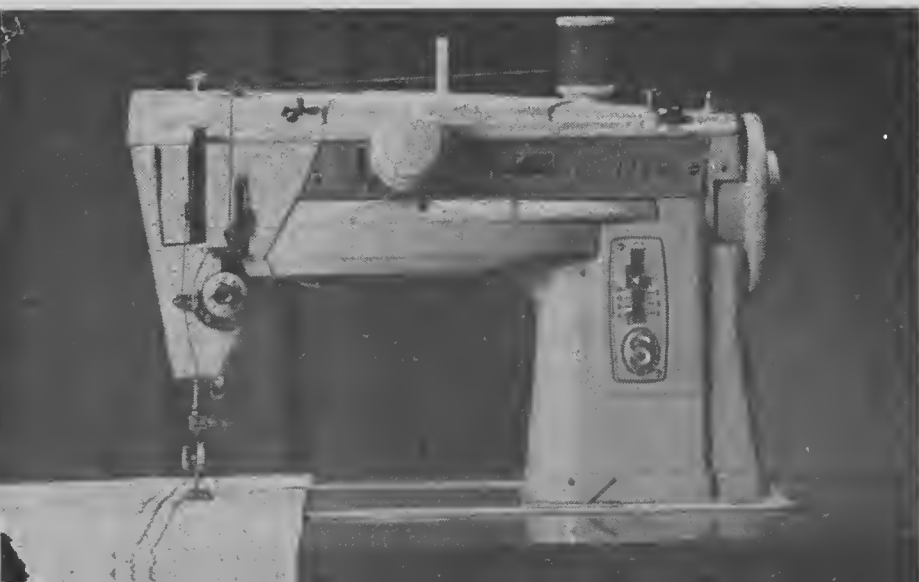
For illustrated catalogue of Singer Products write to your nearest Singer store or Suite 810—1245 Sherbrooke Street W., Montreal, P.Q.



**SINGER SEWING CENTERS**

\*TRADEMARK OF THE SINGER COMPANY

SINGER 411 SLANT-O-MATIC DOES EVERYTHING!



YOUR SINGER ZIGZAG SEWS IT ON—TO STAY!



NEW! SINGER! DELUXE! AUTOMATIC WASHER



# Let's Think It Over

by THE VERY REV. M. L. GOODMAN



## Be Still and Know

*"Along the line of smoky hills  
The crimson forest stands  
And all day long the blue-jay calls  
Throughout the autumn lands."*

—W. W. CAMPBELL

Having come from Ontario to live in the West I find it difficult to make comparisons between East and West. Each has its own special beauty. The poem above does bring the sense of an eastern fall. The hills are smoky blue in autumn and the woods are fiery red and it is very still. There is a peace which comes at no other time of year.

Other words also come to me. "Be still and know that I am God." Here in the west where autumn dresses in quieter colors under the vast arch of the limitless sky, we can sense that same stillness. It is almost like listening to someone breathing.

If we have any sensitivity at all we feel a presence. We know that there is nothing to be afraid of and yet we are moved to silence.

We are also comforted. "There is sweet music here that softer falls than tired eyelids on tired eyes." Life doesn't stop but we are responding to a more majestic, a deeper rhythm than the pace of daily life.

"Be still and know." We want to be still. We are made to be still. Not to be still would be profane.

This is the time of sacrifice, a sacrifice which God has prepared for himself. His world around us has reached her fulness and given up her bounty.

His world around us is clothed in colors and shades which defy our copying. It is being lifted up before Him, offered for his glory.

And it speaks to us in whispers, in many voices and in one great message: "Be still and know."

*Suggested Scripture: Psalm 148.*

## Just a Small Piece, Please

A few weeks ago our church had a refreshment booth at the local fair. Among other things we sold pie. Every effort was made to cut the pies fairly so that each customer would receive an equal portion. Now and then someone would say, "Just give me a *small* piece, please."

We're used to this in the church, because that's the way a lot of people want their religion. "Just a small piece please! I want my religion in small portions just like my pie. I want enough to make me feel comfortable, but not too much, for fear that I might become noticeably religious."

"Just a small piece, please."

*Suggested Scripture: Matthew VI, verse 24. St. Matthew XII, verses 22-37.*

## Not Good Enough to be a Christian

"Oh, I'm not good enough to be a Christian." It saddens me to hear someone say that. It means that they've missed altogether the unique message of the Gospel. It means that they've not seen why it is the "good news."

No one is good enough to be a Christian. You don't become a Christian by being good. You become a Christian by giving yourself to Christ. You don't wait till the day comes when you can say "Now, I'm perfect. Now I'm good enough." You can come to Him now, just as you are. Your being made "good" is His business and He'll attend to it. The only thing He can't do is to make you come to Him. You must do that yourself. Once you do, He will take over. "Him that cometh to me I will in no wise cast out."

How does this come about? What do you say in prayer? Well, one man said: "Lord, I believe, help thou mine unbelief." The hymn has the truth of it "Just as I am—and waiting not to rid my soul of one dark blot,—To Thee, whose Blood can cleanse each spot, O Lamb of God, I come. Just as I am — though tossed about with many a conflict, many a doubt, fightings and fears within, without — O Lamb of God, I come."

This is the "good news." This is what St. Paul means when he says "we preach Jesus Christ." Salvation is not the keeping of rules, nor the struggling to a certain level of goodness. Salvation is the giving of your life to Christ. You are redeemed by a person and that person is Jesus Christ.

*Just as I am — thou wilt receive,  
Wilt welcome, pardon, cleanse, relieve,—  
Because thy promise I believe,  
O Lamb of God, I come.*

*Suggested Scripture: Mark IX, verses 14-29. Luke V, verse 8.*

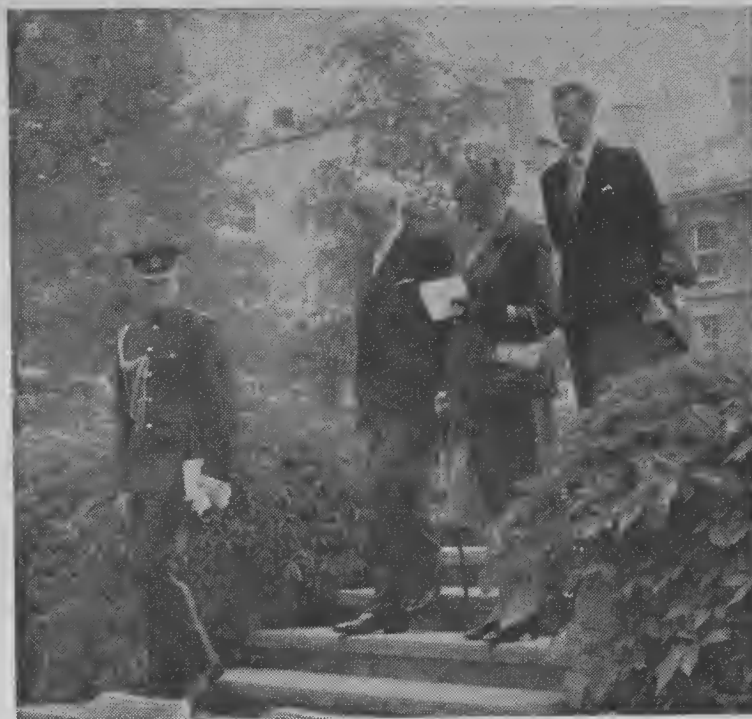


## wholesome

... Instant Postum contains no caffeine, as found in tea and coffee. It is made from whole grain cereals, slow-roasted to bring out the natural flavour that is so good for you. Take a break and see how relaxed you feel after a cup of **CAFFEIN-FREE POSTUM**.



On the tree-rimmed terraced lawns of Rideau Hall—as inviting as any family picnic site—delegates and special guests awaited the arrival of Their Excellencies, the Governor-General and Mme Vanier, shown at right. Out of their own deep concern for the welfare of the Canadian family, and the desire to leave something of lasting value from their term in office, Their Excellencies initiated and lent their sponsorship to the Canadian Conference on the Family.



[Guide photos

# Canadian Conference on the Family

by GWEN LESLIE

PARENT, CHILD, uncle or sister, each of us is in some manner a member of a family. Yet it appears that the Canadian family is something we don't know very much about.

This was one conclusion of the Canadian Conference on the Family held in June in Ottawa under the sponsorship of Governor-General and Mme Vanier. Three hundred and fifty delegates attended the conference, each invited for the contribution he or she might be expected to make in 4 days of conference proceedings. These delegates included scholars, social service workers, religious leaders, housewives, doctors, judges, journalists, business people. One striking fact emerged during the conference: whatever their background, whatever the basis of their interest in the Canadian family, each delegate was sincerely concerned about its welfare and interested to do what he could to promote that welfare.

These people, many of whom work daily in direct contact with Canadian families, admitted freely that they knew too little of the Canadian family at large. Three speakers, commissioned to prepare addresses, confessed to the same problem. And each of them is a specialist in some area of family study.

What, then, do we know of the family in Canada? In a handbook prepared for the information of conference delegates, Dr. Frederick Elkin compiled the conclusions drawn by what surveys and studies have been done. Of the rural family,

he says: "The rural family, throughout the western world, is very different today from the rural family of the past. The increasing use of technology has made farms more efficient and sent millions of surplus laborers to the city; the influence of the mass media and the easier transportation have introduced urban values and patterns of life into the country."

The rural family of the past was, above all, a relatively independent economic unit, serving both as a unit of production and consumption. The husband, wife and children had clearly defined tasks. Work was a prime virtue. The father was the leader of the household but the wife often exercised a major influence in family decisions. The family and marriage were highly valued, and affective relationships and sexual satisfactions tended to be of secondary importance. Larger kinship ties were taken for granted. Everyone felt he could count on relatives and neighbors to help in an emergency and in turn he would go to great lengths to give similar services. Birth rates were high and children were valued as workers on the farm as well as in their own right.

And what of today? Like families everywhere, the rural one is experiencing rapid change, the most striking of which is a decrease in numbers. We know a good deal about changing agriculture as such, but again, not too much about the family on the new, large, mechanized, scientifically ad-

## Home and Family

vanced farm. Intrusion of the urban way of life, through mass media and improved transportation, is thought to have eliminated any major cultural differences between city and country. Urban standards and values prevail. And what does the changing farm family share with the changing Canadian family at large?

Perhaps the first thing it shares is the history of the family. Welcoming delegates to the campus for their working sessions, Carlton University Dean of Science H. H. J. Nesbitt, pointed out: "The family is as old as man himself — as new as each young couple setting forth to found one."

Breaking with tradition, family life today gives priority to the individual, rather than the group, based upon equality between the sexes and the right of the individual to determine and satisfy his needs. Children tend to leave home at maturity, if not before. Elderly parents rarely live with mature children.

The family in the modern world does need help, a summary panelist noted. The family is rightly a public affair because of the human consequence of family failure. Mrs. E. Davie Fulton, member of another panel, cited out-of-date expectations as one of our problems in looking at the family of today. She felt we could no longer think of care of the elderly, of delinquents, or of illegitimacy as private matters. It was not a matter of shoring up old institutions, she said, but of coming to terms with a new social environment (Please turn to page 48)



Delegates met in discussion groups to talk and think together on specific topics of importance to the family

[Doug Bartlett photo



*A bungalow built on a slope  
looks over a panoramic picture of  
foothills and mountain peaks*

# Home on



The exterior of the Eugene Cyr home near Pincher Creek, Alta., features a pleasing blend of Montana stone and cedar siding. Windows to the west are shaded by vented aluminum awnings



From the picture window in their living room the Cyrs have a panoramic view of the countryside to the west with its always-changing cloud patterns



The Cyrs used walnut paneling on one wall in the living room. It makes a decorative background for the brick fireplace. The bearskin rug in front of the fireplace is one of Eugene's many trophies

WHEN COUNTRY GUIDE'S CLIFF FAULK-NOR talked with the Eugene Cyrs, of Pincher Creek, Alta., Eugene smiled: "Every year I say I'm finished building . . . but there's always something more to be done." The "something more" includes the recreation room underway in the basement, the unfinished patio, the five cedar chests being built in his basement workshop for family members. Meantime he and Dorothy, his wife, have the interior of their attractive home nearly complete and their landscaping well underway.

Three years ago, when Dorothy and Eugene learned they were to acquire a daughter-in-law, they realized the time had come for them to make a start on the new house they'd been thinking and talking about for some years. At that point, they already knew where they would build.

There were several reasons for their choice of site — a half mile north of the home farm where the land slopes up and away on the east side of the highway facing a well-treed draw and mountain tops to the west. First of all, they wanted to be reasonably close to the young folks. They felt the father-and-son partnership could operate more efficiently if the partners were not too far apart. Dorothy wanted to "see" the trees and mountain tops to the west. "The other house is surrounded by trees," she explained, "and while I liked the setting I still wanted to be able to look toward the mountains."



Circular openings in the steps leading from the Cyr patio blossom with geraniums. The patio floor doubles as the roof of the root cellar. One of the root cellar vents is seen in the background

The house plan is their own design. It is a bungalow but it utilizes the surrounding slope in such fashion that it suggests a split-level plan. Stairs lead to the main floor level from both the front and south side; yet the back door opens at ground level. The Cyrs not only designed their home, Eugene built it himself with the help of one carpenter and a stonemason. He began building in the fall of 1961 and by the following April it was ready for them to move in.

Kitchen, dining room and living room windows look out upon the mountain crest to the west. A center hall runs almost the entire length of the house. Bedrooms, bathroom and farm office lead from it.

There is evidence of Eugene's carpentering skills all through the house: in the well-made kitchen cupboards, the built-in china cupboard and linen storage that acts as a divider between living and dining areas; in the handmade, highly polished walnut night tables in the bedroom. This summer he completed the necessary cupboards and built-in desk in his farm office.

"IT'S SO EASY TO CARE FOR," Dorothy says of their new home. This comes from her careful selection of cupboard, counter and furniture coverings. For example, she used easy-care copper-tone counter surfaces and tile in the kitchen. One unusual feature in the kitchen is the flour bin which Eugene designed. The lined bin is built into the lower cupboard and its hinged lid forms a portion of the counter top. Dorothy finds this arrangement most efficient because she need not stoop nor reach for flour, a staple she uses in quantity.

One of the most frequently used sections in the Cyr home is its family area. "I think it's important for the men to have a place to stretch out when they come in," she says. This was her reason for choosing a chesterfield upholstered in a washable leather-like plastic. "Even though it is light in color, it's extremely easy to keep clean."

Another feature that makes her housekeeping easier is the central vacuum cleaning installation. The Cyrs built this system into the house during construction. Dirt is sucked through 30 feet of light-weight plastic hose along metal pipes into a tank in the basement. There are three plug-in outlets, so placed that any area can be vacuumed with ease. It's a simple matter to vacuum the entire house in a matter of minutes, according to Dorothy.

Dorothy selected floor coverings on the basis of traffic volume in each area. For example, in such heavy traffic areas as kitchen, family room, dining room and bathroom she chose a vinyl covering. For the two bedrooms and hall her choice was inlaid linoleum. The living room got special treatment: it is carpeted with wall-to-wall broadloom.

AS THE CYRS COMPLETED the interior of their home, they also developed the grounds as a 3-dimension frame for it. This landscaping program makes extensive use of field stone. For one thing, Eugene built retaining walls of field stone to enclose the garden levels and the circular driveway. He also used the same type of stone for the

# a Hillside

by **ELVA FLETCHER**  
Home Editor

steps leading to the front entrance, those going down into the center garden area and the section of the patio floor that doubles as a roof for the root cellar.

While flowers and shrubs surround the house, Eugene's special interest is the rose planting at the rear of the house. This location protects the roses from the strong winds that frequently sweep down from the mountain slopes. The Cyrs also have a large vegetable garden and a well-established strawberry patch. "We both work at the gardening," Dorothy explained.

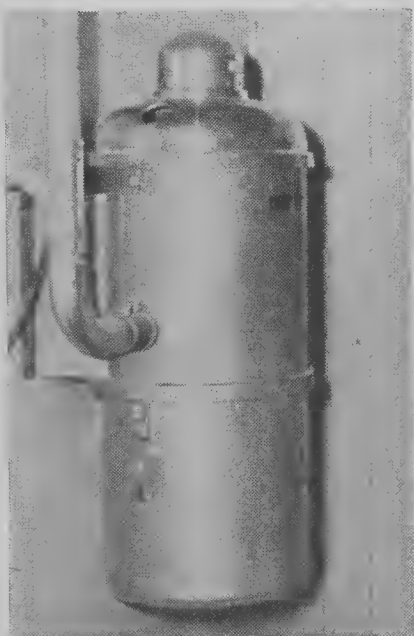
Like so many farm wives, Dorothy's chores go far beyond normal housekeeping. She freezes most of their garden produce for winter use. She bakes bread and buns. "I even churned butter until we moved here," she admitted. Even now she milks the cows down at the home place. "I actually like milking," she smiled. And in busy times she often drives a tractor for the men or helps them with the fencing.

For Dorothy, too, there is always "something more" to be done. She is treasurer of the Chinook local of the Farm Women's Union of Alberta; she's also on the town's Memorial Community Center board. "The old center burned down last year," she explained, "and we're trying to complete our new building in time for the Pincher Creek fair. This has meant an unusually large number of meetings." With curling a favorite winter sport in the Cyr

family, it isn't surprising to find her vice-president of the local curling club. She explained, as an afterthought, that she also does the accounts for the Pincher Creek and District Sheepmen's Association. In a district with a fairly large sheep population this involves a substantial money turnover.

Two of the Cyr children are married; one is still at home. Rod, the eldest, is a graduate of Olds School of Agriculture. He and Betty, his wife, and their two children live in Dorothy and Eugene's former home a half mile away. The only daughter, Marlene, her husband and their two children, have a ranch 9 miles east. While their youngest son, a Grade 11 student, wants to farm too, Dorothy explains that a hay fever problem may make it necessary for him to consider some other aspect of agriculture.

"Young families have their own lives to lead," Dorothy claims. And that's why both she and Eugene like their present location. Rod, Betty and the children are nearby. "We can see the tops of their buildings and their trees from here," and Marlene and her family live in the district. "It's a satisfying arrangement," Dorothy says, "because this way they have their independence, yet it's easy for us to visit back and forth and we are close enough to one another to be helpful when emergencies arise." ✓



In this central vacuum cleaning installation dirt is sucked through 30 feet of light-weight plastic hose along metal pipes into the basement tank shown on the left. The system was put in when the house was built



For a new and different type of window sill garden try miniature roses. [Star Roses photo]

## Indoor Roses

by **DORIS WILSON WEINSHEIMER**

IF YOU WEEP every fall when Jack Frost shatters the last rose in your garden, dry those tears! You can easily grow potted roses on a sunny window sill this winter.

The miniatures—hardy Fairy Roses—are excellent for this. They are exact replicas of garden roses in every respect except size; their blossoms range from a scant half inch to a smidgen less than 2 inches, and their bushes stand from 6 to 12 inches high.

Having made your selection, the next job is to prepare your soil for potting.

If your soil tends to be heavy and clayish, mix it with an equal amount of peatmoss and just enough sharp sand to make it friable. Then, to every bushel of this mixture, add about 3 quarts of finely broken charcoal to sweeten it and to improve drainage.

If your soil is light and sandy, add the same amount of charcoal, no sand, and only one half the above amount of peatmoss. In either case, pop the entire mixture into a container with a tight cover to prevent drying.

Now it is time to exercise our green thumbs. Since drainage is of prime importance to potted roses, the first step is to line up the pots, and do a thorough crocking job on each. Place a curved piece of broken pot over the drainage hole. Cover it with a layer of small pieces and add a thin spread of sphagnum moss. The moss not only admits air freely and prevents fine soil particles from washing out, but it forms a tiny reservoir for moisture. The result? It protects the hairlike feeding roots (after they develop) from excessive drying as well as moisture.

At this point remember that you must not jam or crowd roots down into the pot.

If your plants have an abundance of roots, cut them back until they fit in comfortably. Then place enough soil in the bottom—over the drainage material—to hold the plant in position. Make certain the knuckle or swelling is about an inch above the pot rim, then pack in your moist potting soil and press firmly with your green thumbs. Next, nip the tops back until what peeps out of the pot is equal to the length of the roots inside of it.

If you pot dormant plants, keep the tops plump and moist for the next few weeks. When only a few plants are involved, each pot can be shrouded with a plastic bag and then watered from the bottom whenever the inside of the covering is void of little dew beads. When new leaves develop, toss the plastic bags away. Then water daily during periods of active growth, syringe or mist the foliage every other day particularly where humidity is low.

Now for the feeding of potted roses. I wish you could hear the violent discussions on this at our garden club.

My potted roses grow vigorously on the plant food contained in the potting soil. So, every fall, I repot them in fresh soil (and in larger pots, if necessary). This not only means fresh food for hungry roots, but added space for growing ones.

On annual repotting day, prune each plant back severely, remove the gall from the old pot and rub off any loose soil, but don't disturb the main root ball. Because it is extremely necessary to pack the soil firmly about the roots, just fill in smidgens at a time and tamp it down with a potting stick.

When biting winds rattle your shutters give your miniature rose garden access to every possible cheering ray of sun. Safeguard roses from their damaging enemies (hot air and steam heat) by frequent foliage mistings, and by keeping an ample supply of evaporating water close to the plants.

When their bursts of bloom are over, prune back to out-facing buds, remove all dead wood and reduce water until fresh, new growth appears. Then, watch for a new crop of buds! When spring arrives, sink the plants to the rims of their pots in the front of a sunny garden bed outdoors where they can enjoy a summer vacation of fresh air, sunshine and rain, or occasional sprinklings when the rains fail.

Have I talked you into starting an indoor potted rose garden this fall? It will not only add another dimension to the pleasures you can reap from one of your favorite flowers, but you'll be insured against further weeping when Jack Frost shatters the last rose in your garden. ✓



for  
fashion-  
minded  
Teens



Country Guide Pattern Department

1760 Ellice Ave.,  
Winnipeg 21, Man.  
Box 4001, Terminal "A",  
Toronto, Ont.

Please send Butterick (No. C.O.D. orders, please)

Pattern No. \_\_\_\_\_ Size \_\_\_\_\_ Price \_\_\_\_\_

Pattern No. \_\_\_\_\_ Size \_\_\_\_\_ Price \_\_\_\_\_

To \_\_\_\_\_

No. 3196. Top-stitching trims diagonal seaming in a back-buttoned jumper or Johnny-collared  $\frac{3}{4}$ -sleeve dress. Sizes: 2 to 6X. Price 60c.

No. 3231. Make a jumper or collarless  $\frac{3}{4}$ -sleeved dress with dropped waistline, gathered skirt, self belt. 7, 8, 10, 12, 14. Price 60c.

No. 3232. Scoop-neck pullover, front-pleated skirt, shift jumper, tie-collared blouse in 1 pattern! Girls' 7, 8, 10, 12, 14. Price 60c.

No. 3271. Released tucks flank the front-buttoned closing of a  $\frac{3}{4}$ -sleeved dress with contrast trim. Sizes: 2, 4, 6, 8, 10, 12; 60c.

No. 3277. Step into a raglan-sleeved shirt shift with drawstring waist. Roll-up short sleeves are optional. Sub-teen sizes 8S, 10S, 12S, 14S; Young Jr. 9, 11, 13; Teen 10, 12, 14 and 16. Price 60c.



# Pacific Harvest

by GWEN LESLIE  
Food Editor



Toward evening of a sun-warmed August day we accompanied a gill netter salmon fishing boat to the mouth of the mighty Fraser River. We borrowed this handsome Sockeye salmon from the fisherman's catch for photograph above

FARM FOLK have a feeling for many of the foods in the daily diet—a feeling of familiarity with the nurture or cultivation which precedes the harvest. The stockman knows his meat, the poultryman his eggs and fowl, the prairie grain farmer his cereal products, the dairy farming family its many dairy foods.

Last month the Fisheries Association of British Columbia undertook to introduce a group of food editors to the Pacific coast fishing industry and to those who farm the coastal waters. These folk know their fish.

"If we can give you even a glimpse of the romance of this industry, you'll really have a story," one host proclaimed. And an industry set forth to win our hearts.

With Dr. Murray Newman, curator of the Vancouver Public Aquarium, as guide we saw a sampling of what he describes as "the wonderful wealth of variety in fish found in the North Pacific." Canadian consumers, he charged, hadn't even begun to appreciate the variety in edible fish but he admitted that weaknesses in the naming of fish lead to confusion about the ones we do eat. Atlantic salmon, he noted, is indeed very like the Pacific steelhead trout. B.C. salmon, on the other hand, embraces five distinct species with the common characteristic that they all die upon spawning.

Eric Turnill, a processor representative, said that of the five species the Sockeye was the most prized, and has provided the basis for the industry since its inception in the 1870's. The Sockeye, weighing between 5 and 7 lb., is the deluxe of the species. The Coho salmon, not quite so red, oily or flavorful as the Sockeye, weighs between 6 and 12 lb. and is sold canned, fresh and frozen. Chinook (called Spring by the trade), 10 to 50 lb. in weight, is sold largely in fresh and frozen form. The smoked salmon product known as lox is Chinook salmon. Pink salmon, weighing 3 to 5 lb. is practically all canned. Chum or Keta salmon, 8 to 18 lb., reaches the consumer in fresh and frozen form now, although before the last war, it was largely canned.

To the extent that he does not sow what he reaps, the fisherman has an edge over one who farms the land. But he's dealing with a wild animal, and in many respects an unpredictable one. And he harvests in international competition. Conservation is important, if he's to find fish another year, so fishing time and place are regulated, and a careful watch is kept on the number of salmon, for instance, which escape up river to replenish the supply.

For many of us, the salmon catch most readily available is in the can. Here are some recipe suggestions for across-Canada enjoyment of a product of the western waters.

## Quick Salmon Crisp

- 1-lb. can salmon
- ¼ tsp. salt
- 2 T. minced green pepper
- 1½ c. soft bread crumbs
- 1 T. finely minced onion
- ½ tsp. poultry seasoning
- ½ tsp. celery seed
- ¼ tsp. pepper
- 1 T. melted butter
- Milk
- 4 slices bacon, cut-up

Preheat oven to 425°F. (hot). Grease a 6-cup baking dish.

Flake salmon, reserving the liquid. Blend salt and green pepper into salmon. Spoon into baking dish. Toss together the bread crumbs, onion, poultry seasoning, celery seeds, pepper and melted butter. Add enough milk to salmon liquid to measure ½ cup. Mix into bread crumb mixture. Pile dressing lightly on top of salmon, and sprinkle with uncooked bacon pieces. Bake until salmon crisp is thoroughly heated and topping is crisp, about 20 minutes. Yields 4 to 5 servings.

## Pacific Chowder

- 1-lb. can pink salmon
- 3 slices bacon
- 3 T. finely chopped onion
- 2 T. finely chopped green pepper
- 20-oz. can cream-style corn
- 3 c. milk
- ½ tsp. salt
- Dash of pepper
- ½ tsp. sage
- 1 c. diced, cooked potatoes

Break salmon into chunks; do not drain. Cook bacon crisp in a large heavy fry pan. Remove bacon and crumble. Saute onion and green pepper

in bacon fat until soft. Blend in corn, then milk and seasonings. Cover and heat slowly, stirring, until mixture barely simmers. Add salmon, potatoes and crumbled bacon and continue heating over low heat until piping hot, about 10 minutes. Serve in large bowls, topped with a bit of butter and minced parsley if desired. Yields about 6 servings.

## Salmon Skillet Dinner

- 1-lb. can pink salmon
- 1½ c. liquid (salmon liquid plus water)
- 5-oz. pkg. precooked rice
- 10-oz. can cream of mushroom soup
- 10-oz. pkg. frozen peas
- ½ c. grated cheddar cheese

Drain salmon and break into chunks, reserving liquid. Measure liquid and add water to make up 1½ cups. Combine liquid with soup in fry pan and bring to a simmer. Stir in rice, salmon and peas. Top with grated cheese. Cover and simmer for 15 minutes. Yields 4 to 6 servings.

## Salmon Porcupines

- 1-lb. can pink salmon (2 cups)
- 1 tsp. salt
- Dash of pepper
- 1 tsp. curry powder
- 1 c. packaged precooked rice
- 8-oz. can tomato sauce
- 10-oz. can tomato soup
- 2 tsp. sugar

Flake salmon and mix with liquid from the can. Blend in salt, pepper, curry powder. Mix in rice. Shape mixture into 10 to 12 balls. Mix remaining ingredients in a heavy fry pan with lid to fit. Bring to boil, then add salmon and rice balls. Simmer, covered, about 10 to 12 minutes, turning balls occasionally. (If you like, salmon porcupines may be lightly browned in a small amount of hot fat before simmering in tomato sauce.) Yields 3 to 4 servings.

## Pineapple Salmon Loaf

- Two 1-lb. cans salmon (4 cups)
- ½ c. finely chopped green pepper
- 4 T. finely minced onion
- ½ tsp. dry mustard
- 1 tsp. salt
- Dash of pepper
- 1½ c. rolled oats
- ¼ c. milk (approximate)
- 20-oz. can pineapple spears
- ¼ c. brown sugar
- 2 T. cornstarch
- ½ tsp. salt
- 1 c. water
- 1 c. juice drained from pineapple
- ½ c. vinegar
- Pineapple pieces
- 1 T. butter
- ½ to ¾ c. thinly sliced green pepper

Preheat oven to 375°F. (moderately hot). Grease 9" by 5" loaf pan.

Drain and flake salmon, reserving liquid. Thoroughly blend chopped green pepper, onion, mustard, 1 teaspoon salt, pepper and rolled oats in a mixing bowl. Measure reserved salmon liquid; add enough milk to make 1 cup. Pour over ingredients in mixing bowl, stirring with a fork until thoroughly moistened and well mixed. Blend in salmon. Pack half of salmon mixture into the greased loaf pan. Drain off and reserve pineapple juice. Arrange about 8 pineapple spears in a single layer over salmon in pan. Cover with remaining salmon mixture, packing down well. Bake about 45 to 60 minutes, until loaf is firm and edges begin to brown. Unmold on serving plate, and serve hot with Pineapple Pepper Sauce prepared while loaf bakes. Yields 6 to 8 servings.

Pineapple Pepper Sauce: Measure juice from pineapple and add water if necessary to make 1 cup. Thoroughly mix brown sugar, cornstarch and salt in a heavy fry pan. Blend in 1 cup water, pineapple juice, and vinegar. Cook, stirring, until mixture boils and thickens to a clear, smooth sauce. Cut up enough of remaining pineapple to measure ½ to ¾ cup pineapple pieces. Stir into sauce along with butter. Simmer a few minutes. Add green pepper strips about 5 minutes before serving hot to spoon over Pineapple Salmon Loaf. Yields about 2 cups sauce. V

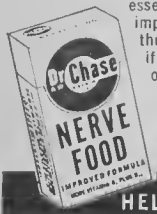


Pineapple pieces are featured in a layered salmon loaf and its piquant sauce

## WORN TO A FRAZZLE?



Has your former "dazzle" changed to "frazzle", because of a rundown condition? If so, the tonic benefits of Dr. Chase Nerve Food could help you. This time-tested remedy provides beneficial iron and other essential ingredients which improve your blood and, thus, help fight fatigue. So, if the "dazzle" has gone out of your life, start taking Dr. Chase Nerve Food. It has stood the tests of time and experience... ask your druggist.



HELPS FIGHT FATIGUE

## BLUE MONDAY?



YOU BET!

for a whiter washing

A few drops of REAL LIQUID BLUING in the rinse water gives sparkling whiteness to sheets, linens, diapers, nylons—ALL white clothes. Keeps colors bright, too!



Next Washday

**MRS. STEWART'S LIQUID BLUING**

Box 428 • Winnipeg, Manitoba

Write for FREE HOME WASHING GUIDE

## What Is An Expert?

The cynics say he is anybody who is at least a dozen miles from home. But we believe that a lot of farmers are experts on their own farms. That's why the Country Guide treats the farmer with respect, looks on him as a friend, and is always ready to listen to him. If there's something you want to tell us, or anything you want to ask us, the address is Country Guide, 1760 Ellice Ave., Winnipeg 21, Man.

## Does Change-of-Life Make You Feel Older Than You Are?

In clinical tests with this special medicine, woman after woman got relief from those hot flashes, weakness, nervousness that can make you feel so tense and tired!

Does change-of-life leave you so weak, so irritable you feel older than you are—unable to enjoy your family? Thousands have found that Pinkham Tablets can relieve that physical distress and nervousness both... in clinical tests woman after woman got grand relief! Hot flashes subsided and that awful irritability was calmed. Then most women found they could go "smiling through" these trying years. Get Lydia E. Pinkham Tablets. See how fast they help you feel more like yourself again!

### PREFER A LIQUID?

Druggists also have Lydia E. Pinkham's Vegetable Compound.

## HANDICRAFTS

### Handknits

Patons and Baldwins Ltd. Leaflet No. 2009, 25¢, features three girls' sweater styles designed to fit sizes 2 to 8. The short-sleeved pullover, classic cardigan and cable-front, long-sleeved pullover all knit up quickly in luxurious mohair. All three have raglan sleeves.



Patons and Baldwins Ltd. Leaflet No. 2014, 25¢, offers knitting instructions for two classic raglan suits in sizes 12, 14, 16, 38, 40, 42.

Knitting Leaflet No. 2021, 25¢, by Patons and Baldwins Ltd., offers pattern instructions for four popular styles in winter headwear. There's welcome warmth for every member of the family in the selection shown at right.



Three of the four hat styles featured in Patons and Baldwins Ltd. Leaflet No. 2020, 25¢, are shown above. Two are knitted (one knitted hat is shown above l.) and the other two hats (pictured above center and r.) are crocheted.

For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

## CANADIAN CONFERENCE

(Continued from page 43)

quite different from the traditional one. We must increase the family's ability to cope with its problems, not simply tell it about them.

Dr. Nathan Epstein, an eminent Canadian psychiatrist, decried the lack of facilities for treating troubled family members. "There are more facilities for the treatment of family pets than there are for children," he said. The stress placed on one modern trend, democracy in the family, was misleading, he said. The family rating highest on the democratic scale produces more disturbed children than the family in which there is a recognized figure of authority.

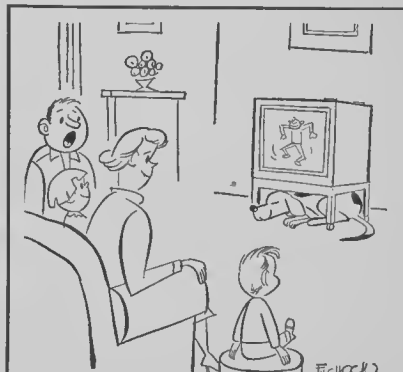
But as Father Gerard Dion pointed out, there was a tendency to idealize the past. He said, "Myself, I believe today's society is better for today."

In the course of this first Canadian family conference, there was bad news and good news as well. Conducted in both French and English in an auditorium equipped for simultaneous translation, the conference opened lines of communication for people from every province, from a wide background of knowledge and experience in working for and with Canadian families. Participants posed many questions yet unanswered:

Will the family as we know it today continue? Will it survive? What are we to do to protect the family, the state and the law? What of the legal position regarding family planning information? Who is my neighbor in a global village?

Discussion groups defined a number of the family's social needs. At the conclusion of the conference, delegates recommended the creation of a continuing organization, a foundation on the family named for the Vaniers. Mr. A. D. P. Heeney, national president of the conference, suggested four specific functions it might serve.

1. An information center and the center for a growing body of knowledge for family studies; a means of communication between persons and organizations concerned with Canadian family life.
2. The sponsoring of conferences, seminars and study groups on family life.
3. The stimulation and organizing of teaching in the area of family life.
4. The encouragement and assistance of research on family life and the dissemination of the research results.



"This is progress for you... When I was a kid my dog slept under the kitchen stove."

# Beauty Treatment for Furniture

by HILDA ROSS



**Step 1.**  
Remove old finish



**Step 2.**  
Fill any  
deep dents with  
surfacing putty



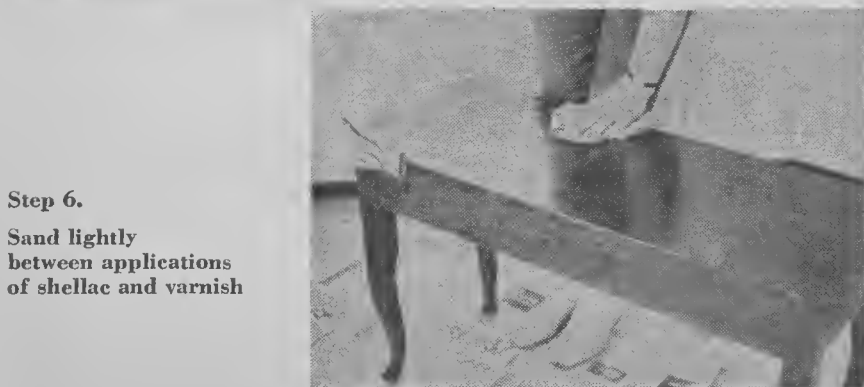
**Step 3.**  
Apply stain  
to one surface  
at a time



**Step 4.**  
Wipe off  
excess stain when  
desired shade is  
obtained



**Step 5.**  
Apply shellac  
to seal in the stain



**Step 6.**  
Sand lightly  
between applications  
of shellac and varnish

BEAUTY is not "skin deep," even in furniture. Underneath a scratched or marred finish there is often a lovely piece of wood. You can bring out this hidden beauty in your occasional furniture by refinishing it. The method is not difficult; it is a step-by-step procedure. You can do a little each day, or whenever time permits.

Before you begin, check your supplies. You will need rubber gloves, paint remover, a putty knife, sandpaper, a supply of old newspapers, wood surfacing putty, oil stain, shellac, varnish, and suitable brushes.

Be careful to cover the floor of your workspace with a thick layer of old newspaper because drops of paint remover could be fatal to the finish on your floor. All rags or papers used with paint remover should be carefully disposed of by burning.

The first step is the removal of all old finish from your project piece. The easiest method is to apply paint and varnish remover to a small section of the furniture with an old paint brush. Leave this for from 5 to 10 minutes (until the finish begins to bubble), then scrape off with a putty knife. Whenever necessary, wipe putty knife clean on an old newspaper. Wear rubber gloves to avoid any discomfort to the skin. Apply as many coats of remover as are necessary to remove all the old finish. Then give the piece of furniture a final rubbing with a pad of steel wool dipped in the paint remover.

Check the surface for scratches. These can usually be sanded out by using No. 1 flint paper. Dents can often be treated successfully by the "hot-and-cold" treatment. The principle involved is the sudden change of temperature from high to low. Follow this method:

Crush a few ice cubes and place in a cloth bag. Heat a piece of cloth by pressing it with a hot iron. Place the heated cloth over the area to be treated, and press it down firmly with your hand for a few minutes. Then remove it, and replace immediately with the bag of ice cubes. Allow this to remain for a few minutes. Repeat these hot and cold applications until the dented area comes up even with the adjacent surface. Remove all traces of water with a clean cloth. Some stubborn dents may have to be filled with surfacing putty, which can be purchased in a variety of shades to match almost any of the common woods. Careful selection is necessary so that the putty is not conspicuous after application. For a better match, mix a drop of stain into the putty before it is applied. Allow to dry

according to the directions on the can or tube. Then sand the filled areas so that the entire surface is smooth.

Now give your project piece a final cleaning with a cloth soaked in denatured alcohol, using firm pressure. This removes any traces of wax that may remain in the pores of the wood, which would otherwise prevent the new finish from drying thoroughly.

Carefully sand the entire surface with 3/0 garnet paper, remove all traces of dust, and you are ready to start applying the new finish.

Try out the stain you have chosen on the underneath part of the piece of furniture, checking for the desired shade. Then apply stain with a brush to one surface at a time. Use a cloth to wipe off any excess stain, when the required color has been obtained. Allow to dry for 24 hours.

The next step—the application of shellac—is very important because it seals in the stain, and helps to fill any porous surface. Apply 2 or 3 coats of white shellac, allowing a 24-hour drying period. Sand lightly between each coat. Another very light sanding is necessary before varnishing, which is the final step in the refinishing process. Varnish is available in either glossy or satin finish. Either is equally satisfactory, and the one you choose depends entirely on the effect you desire.

Remove all fine dust carefully, either with a vacuum cleaner or by wiping with a slightly damp cloth. Allow to dry completely. Work with a clean brush in a dust-free room if possible, at a temperature of around 70°F. Place the can of varnish in warm water before you begin. There's a reason: varnish is much easier to apply when it is warm. Sand lightly between each of the three applications of varnish, carefully removing any trace of dust. Allow at least 24 hours for drying.

You now have a shining example of what a little time and material, combined in a beauty treatment, can do for your furniture. ✓

## Chatter Not

*If you would speak,  
Chatter not to me.  
Speak to me of ideas, of ideals,  
Of great loves, of quiet moments.  
Speak of the gentle delight of  
friendship,  
The exaltation of soul-soaring music,  
The inspiration of poetry,  
The beauty of children,  
But I pray you,  
Chatter not to me.  
If you would speak,  
Say something!*

—JACQUELINE LEICHTER





# Tiki and the Coyotes

by GALE GEORGES

TIKI, son of the chief Lonchu, padded softly across the tepee floor lest he waken his baby sister. Outside, Morning, the daughter of Night, was crossing into the heavens. Tiki greeted her. "Greetings and peace," she whispered softly. Yet Tiki felt her breath and saw it tremble the leaves.

He left the hushed village of teepees and began to run with the fleetness of a deer into the valley of the little river of One-That-Laugh-Softly. But in spite of how fast he ran he knew Nimba would be there before him. And so it was.

Nimba was a huge silver Coyote, son of Kibo, great chief of all tribes of Coyotes. Tiki and Nimba were great friends. They played in the forest, hunting, talking and laughing.

But today Nimba, the Coyote, looked angry. He turned his proud head to Tiki and spoke.

"My brothers say that in the safety of the circle of the cooking fires you, Tiki, a mere boy, said all Coyotes were useless to Man."

Tiki rose to his full height and looked angrily at the Coyote who challenged his action. He was Tiki, son of a great warrior. "And are not all Coyotes playful dogs who seek only pleasure?"

"Beware, boy," said Nimba, "I have spoken with the great leaders of all Coyotes and now my Grandfather has spoken. All Coyotes shall leave the land of your father. I wished us to leave and never return; but Grandfather has said not. We shall return in three years by the moon. Then the stars and sun of the sky and the vain creatures called Men shall see how useless the Coyotes are!"

So saying he vanished into the forest and all was silent.

Thus Tiki began to live the three sad years, his punishment for speaking without wisdom.

Winter swept the land freezing the very heart of the world. Tiki no longer had his friend, and as he wandered in the forest he saw strange things. Huge rabbits, perched on the crusted snow, gnawed the trees. Tiki wanted to shout "Stop!" For he knew that this multitude of white fluff and great teeth was killing the forest. They were too hungry, too many.

Winter wilted and his sister, Spring, reigned. But to the horror of Lonchu's people fat mice in swarms descended on the green sprouts before they bloomed. The gardens were ruined!

Tiki and his father trapped,

hunted, snared and grieved. Ten rabbits sprang up from the death of one; and a thousand mice came for each one killed. Gardens were gray soil and no plants; the forest withered to bare spikes pointing at the sky. Tiki's neighbors became thin and hungry. There were quarrels among friends. Tiki's little sister cried with hunger.

Tiki approached his father. "What has become of our land?"

Speaking softly his father said: "When the great Mother called Earth first made creatures, she said let each be the food of the other. The rabbits and mice that plague us are the food of Coyotes and for some reason unknown to me and our people, the sly creatures have left our land."

Filled with great sadness, Tiki left his village and sought Nimba. The wind howled and shrieked and Tiki felt the fingers of pain and frost.

In the far corner of the Earth he found the Coyotes and on a night of a full moon he was brought before the Great Council. They placed Tiki in the center of the circle. "What brings this vain creature here?" Kibo asked.

Tiki remembered his people, his little sister's cries and his father's sadness. In his mind he could see the dying forest, the empty fields.

"I have come to ask your forgiveness. I know now that to have peace and contentment all men and animals must live in harmony. All are needed



in the great plan called Life. Please return to our land."

Kibo rose. "Hunger has taught you wisdom. This is the third year of our exile. Tonight we return."

As they prepared to leave Tiki saw Nimba. "My friend," he said gently. "My friend," said Nimba.

Contentment followed Tiki and Nimba home. Now when Morning rises over the land she sees the Chief of all people, Tiki, wisely counseling his people as they work in their great, green fields.

**Riding**  
Don't fall out  
of a moving car,  
Lock the door.  
and you'll go far.  
—DOROTHY S. ANDERSON.

## The Unknown Lake

Afar beyond humans' notion  
Lies a lake filled with motion,  
Nature, here, is queen of all,  
Through the seasons, spring to fall.

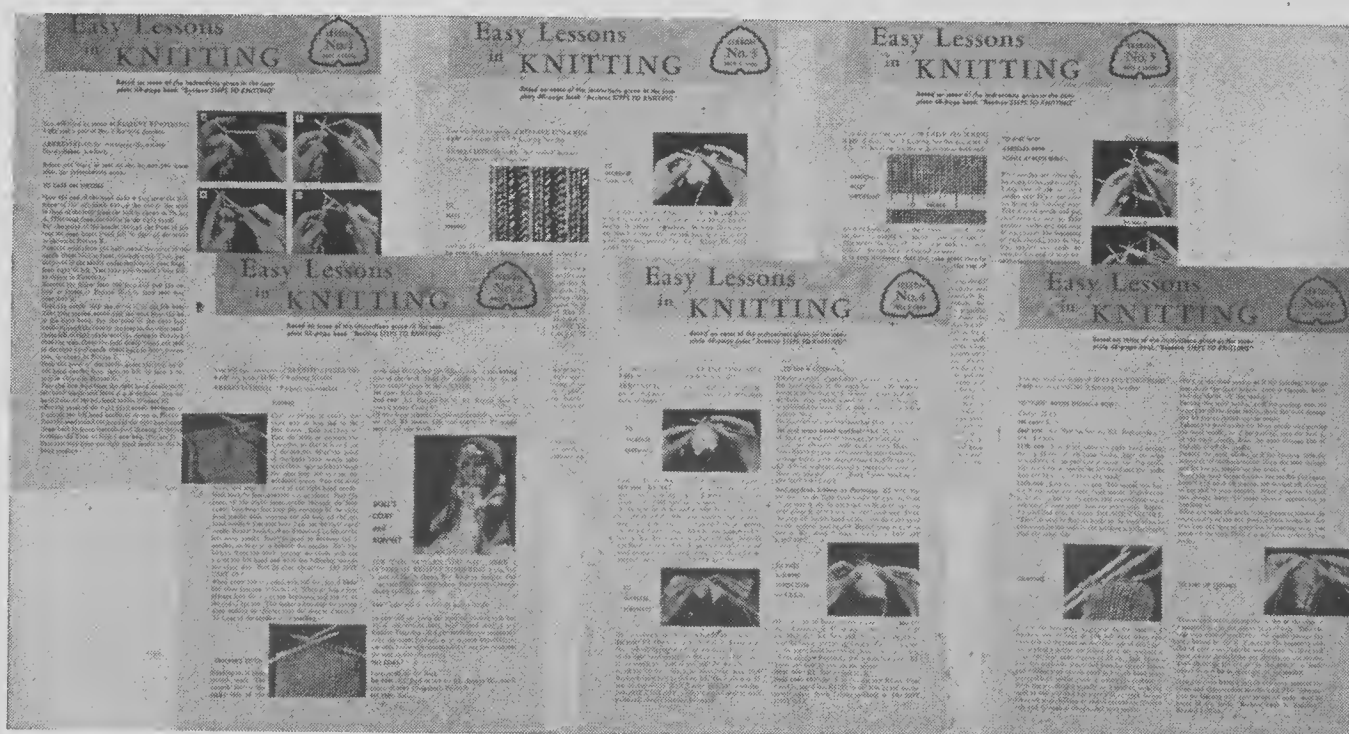
Leaves that flutter, birds that fly,  
Across the blue and distant sky,  
Across a lake so still and clear  
So far away and yet so near.

Perhaps, perhaps it will stay,  
Unknown, unclaimed beyond this  
day.

A beauty unknown to humans' life  
Another work of Nature's strife.

—GLENNIS WRIGHT

Age 11,  
R.R. 2, Kamloops, B.C.



LEARN TO KNIT! Country Guide is pleased to be able to offer Patons and Baldwins' series of six knitting lessons for beginning knitters. Order your set of free knitting lessons from the Country Guide handicraft department today

# Tips for Teen-Age Voters

by RUSSELL DOERN

## Part III

### The Secret Ballot

THE WORD "BALLOT" is derived from the Italian word "ballotta" meaning ball. In ancient times, small colored balls were used in balloting — a method still followed in electing members to certain private clubs where one or more black balls excludes the candidates.

Primitive societies recorded their opinions by clamoring or by the clashing of spears on shields. The word "suffrage," the right to vote, is derived from the Latin "suffragium" which literally means "a responsive crash."

In ancient Athens the whole citizenry assembled in the market place and decided all matters of common concern; however, this is impractical in the modern state where people select representatives. Athenian democracy showed signs of breaking down at one stage when citizens had to be paid to attend assemblies and vote.

Before the introduction of the secret ballot, British elections were public with much brawling and rioting. Numerous corrupt and illegal practices included: (1) bribery by gift, loan, or promise; (2) "treating" with meat, drink, and entertainment; (3) undue influence, such as the threat of force, violence, or restraint; (4) personation — voting for another person alive or dead, and (5) unauthorized expenditure over and above legal limits. Jostling and heckling at meetings frequently developed into open clashes. After the election speeches, the crowd usually broke up the platforms and decorations, in much the same spirit that modern football fans tear down the goal posts.

South Australia was the first state to introduce the secret ballot (1856). The system spread to Europe and America to meet growing public and parliamentary demand for the protection of voters. Britain introduced the Ballot Act of 1872, whereas the secret ballot became general in the United States after 1884. The voting machine is a modern, mechanized version of the secret ballot.

The secret ballot offers the voter protection from intimidation and reprisal. The ballot is marked in a private booth, folded, and placed in a locked ballot box.

The secret ballot is a precious inheritance of the modern voter, undreamed of by his frequently harassed ancestors.

## Part IV

### How Not to Vote

A VOTER must know the men and the issues of an election or his vote will be worthless.

A voter who has not studied an election will decide on the basis of incomplete information or impressions. On issues, complex questions



Illustrated by PIERRE

cannot be decided by reading an advertisement or tossing a coin on the eve of an election. Careful thought is required. On personalities, the unprepared voter may favor a candidate who:

- looks like his Uncle Charlie
- sends the best designed or greatest number of pamphlets
- is of the same ethnic or religious background
- has nice eyes, hair, nose or teeth
- went to the same school, church, club, supermarket
- shook his hand.

The list could be expanded indefinitely. All are excuses, rather than reasons, for voting. You could as validly mark the first, second, or third name on the ballot.

Similarly, the voter should not support the candidate or party he believes will win — the "bandwagon vote." An election is not a horse race—don't bet with your ballot. In fact, nobody can accurately predict the outcome of an election.

Vote for the candidate or party you think will provide the best government. The wasted vote is not a vote for the one who loses an election, but a vote that is not carefully and rationally considered.

## Part V

### Should I Join a Party?

EVERY MAJOR political party has a youth group. Membership is generally open to anyone from 18 to 30 years with some minimums even lower, 14 years and up, for example.

The youth groups study and discuss party platforms and philosophy, participate in provincial and federal elections, and supply the senior party with fresh blood and ideas. Young people are usually more radical than their elders and act as a stimulus to them; the youth group has representation at party conventions with voice and vote. Regular meetings are addressed by leading parliamentarians and prominent politicians, followed by a question and discussion period.

Negatively, the youth group indoctrinates or instills a particular set of principles or policies in its

membership, but this is only harmful where the participant is too young or uncritical. Positively, the youth group introduces its members into the political bloodstream and prepares them for future leadership.

Most universities and some high schools hold annual election campaigns and model parliaments which provide an opportunity for active campaigning, political speech-making, and, best of all, actual experience in parliamentary procedure. Members of the government prepare and introduce bills while opposition spokesmen engage in the cut and thrust of debate.

Canada needs the best available talent in government. A career in politics is no longer second-rate — our M.P.'s in Ottawa are among the best paid public representatives in the world at \$18,000 a year. In preparation for a political career, you must start early. One of the best ways of acquiring experience is through a party youth group. Why not join one?

## Part VI

### Obtaining Information

DURING ELECTIONS, the public is besieged with campaign literature and advertisements especially designed to sway them. Flattering photographs and professional writing will enhance the qualifications of any candidate, but may further confuse the interested onlooker.

The following media provide information throughout the year in a less biased manner than the political pamphlet:

Daily newspapers are essential for anyone who desires to be well informed on politics. There are three main areas of political coverage: (1) the news columns contain speeches, statements, and descriptions of political developments which the reader himself must assess; (2) political columnists interpret developments in relation to their own observations; (3) the editorials express the viewpoint of the newspaper, generally in support of its fundamental political philosophy.

Magazines, radio, and television as a rule lay heavy emphasis on political commentaries. In judging these, the voter should consider the validity of the viewpoint in relation to the actual news. For those who want their own source of information while Parliament or the Legislature is in session, the debates are fully reported in Hansard and may be obtained from the Queen's Printers.

Regular meetings of your local councils are open to the public and should occasionally be attended. At election time, public meetings and Town Halls, where prospective candidates speak, will assist you in evaluating the men and their platforms. In addition, all parties and candidates publish brochures.

Other good sources are the Canada Year Book, publications of the Dominion Bureau of Statistics, various encyclopedias, and books on history, economics, and political science.

The amount of information available to the voter is considerable, but you can only vote intelligently if you make use of it.

(to be continued)



please don't  
make the  
postman  
guess —  
be sure to  
write the  
correct  
address.



DM150FP



For fast relief from menstrual pain you can count on help from the 4 active ingredients in

**PARADOL**

## NEWS HIGHLIGHTS

(Continued from page 11)

control groups. This result was repeated time and time again. He said that farmers using it could expect a return of \$5 for every \$1 spent on the product as a result of feed savings and disease control.

In one test at the Western Ontario Agricultural School, Ridgetown, a group of 18 hogs were fed this product to a weight of 75 lb. The hogs were finished to market weight on a 70 per cent corn ration. The pigs were marketed at 139 days of age, and 14 graded A, 4 B. Feed conversion was 2.36. In the same tests, a group of pigs fed without the product took 29 days longer to reach market weight and ate an extra 130.5 lb. of feed.

The new product consists of a mixture of the three drugs, aureomycin, sulfamethazine and penicillin. It is available through feed dealers, feed manufacturers and veterinarians. ✓

### TOBACCO SOLD TO ISRAEL

At least 110 tons of Ontario tobacco will be sold to the three main cigarette manufacturing companies in Israel, states D. E. Williams of the Ontario Food Council who has recently returned from supervising the Ontario Farm Products Exhibit at the International Trade Fair in Tel Aviv. ✓

### MANITOBA EXPORTS FOOD

This year, for the first time, seven Manitoba food processing firms exhibited at Britain's biennial food fair in London, England, the largest food products show in Britain. The 2-week fair drew over a quarter of a million people, many of them buyers and potential distributors from all parts of the world. The Manitoba Export Corporation arranged the exhibit as part of its program to develop export markets for Manitoba products.

Exhibiting firms included Co-op Prairie Cannery Ltd., Manitoba Co-operative Honey Producers Ltd., Irish Potato Chips Ltd., Northland Wild Rice Ltd., Chicago Kosher Sausage Manufacturing Co. Ltd., Speers-McGonigal Ltd. and Manitoba's freshwater fish processing industry. ✓

### FARM WOMEN SELL PORK

At least 1,000 Illinois farm homemakers will become saleswomen for 2 week ends this September when they take part in a massive pork promotion in retail stores throughout the state. The special promotion, which first started in 1962, is organized by the Women's Committee in co-operation with the Illinois Agricultural Association (the state's Farm Bureau). The ladies will be trained as "professional demonstrators" and will work in stores in their own community to display and promote stuffed pork chops to consumers. The 1963 campaign emphasized smoked pork butts and resulted in an average sales increase of 365 per cent. ✓



Jack MacKenzie fits long rye straw into the collar as it is stitched. Such straw is difficult to get, a result of today's combining

[Clare's photos]

ONE OF THE FEW harness shops left in Canada is in Sackville, N.B. Its front windows display brass harness ornaments shaped like deer, horses, stars, horseshoes, and Scotch thistles. They lure you inside the shop where the air is heavy with the smell of japanned leather. Pieces of harness and brass-studded bridles cover the walls. Blue, red and green plaid horse blankets lie heaped on the showcase.

In the back of the shop, I found president and general manager W. W. Ward, a slight elderly gentleman who wears an apron of striped ticking. He stood at a work bench cleaning leather with a "spokeshave." Behind him was a "stitching horse." He seated himself on it, pressed a foot lever that brought two wooden clamps together on a piece of strap. Then he stitched the strap, using two needles and an awl.

"Been doing this for 43 years," he said. "I've made a pile of harness in my day. Not many harnessmakers in Canada now. I'm sure we're the only ones who make collars by hand."

The machine-made collars, he explained, were put together and blown full of straw. With the first hole the straw would leak out. However, in a hand-made collar, long rye straw (which is very difficult to find with today's combine threshing) is fitted in as the collars are stitched. For this reason holes in them make little difference.

All around Mr. Ward's work area there were burlap sacks filled with scrap leather. This leather is sold to fishermen who use it to make hinges for lobster pots. Upstairs, Mr. Ward showed me a room full of finished harness. Much of this is sold locally for use in the pulp and paper woods and for harness racing. Some goes to the Quebec sugar bush country, to northern Ontario, northern Alberta and the Fraser Valley of British Columbia.

A number of collars hung on the walls. One was designed to slip over a horse's head. I learned that a narrow collar was called a sweeny collar. Another is known as a long collar. I also learned that collars ordered

*The smell of straw and leather  
lingers in a shop where time stands still*

# Sackville Harness Shop

by JEAN ELFORD

for the Maritimes are smaller than those for Alberta. "Must have more stallions out there," he said. And 20-year-old collars often come in to be mended.

He showed me a set of team harness for exhibition use. Completely hand-stitched, shiny black, rich with brass, it was worth \$250 complete with collars. Such a harness, he said, lasted indefinitely.

IN THE SUPPLY ROOM there was a pile of hides brought in from Ontario. The shop uses 6 or 7 tons of these hides a month. Near them were great reddish colored hides at least 3/16 of an inch thick and up to 10 feet in length which come from Argentina and are used for tugs. There was also a quantity of soft, colored English leather for lining collars and the rolls of burlap and felt that are used in making horse blankets.

Mr. Ward believes that the shop has survived because it is one of the

few of its kind. He explained that, in 1945, it employed 5 men full-time. Now, he and Paul Blakney make the harness while Jack MacKenzie and a part-time worker make the collars. Iron work is done by nearby Wood Point blacksmith, Stephen Smith.

"In addition to harness and collars we make a lot of pony harness and school bags," Mr. Blakney told me, pointing to a pile of bags in front of the counter and another beside the Quebec heater.

"We also sell some brass harness ornaments to American tourists," Mr. Ward said. When I asked what they did with them he shook his head. "I haven't any idea. One woman bought 12, one of each design. At 75¢ each they cost her \$9.00."

Sentimentally, I bought a brass Percheron ornament for myself. It reminds me that a harness shop is still to be found on Main Street in 200-year-old Sackville. ✓



Cutting heavy harness leathers demands a strong hand and careful eye. Paul Blakney, shown above, works in one of New Brunswick's oldest businesses



## DIVERSIFIED FARM

(Continued from page 18)

because I can't afford to buy bulls of that quality."

In addition to the beef herd, the Cyrs keep eight milk cows — most of them Guernseys. This year, they had some of these cows serviced



[Guide photo

Mineral feeder on the summer range is built from an oil drum. It rotates slowly in the wind, because it is fitted out with a swivel at the base

with Brown Swiss semen. They ship the cream and feed the skim milk to their pigs.

"That saves us from buying a lot of concentrate," Eugene pointed out.

They buy weaner pigs locally and feed out from 50 to 60 hogs a year. Most of these are a Landrace-Yorkshire cross. The hogs and milk cows are housed at the original farmstead near the southern boundary of the property where the married son, Rodney and his family live. Eugene and Dorothy Cyr, and Clarence, live in a new house built at the northern end, on the outskirts of Pincher Creek.

In the planning stage is a 64-ft. by 120-ft. feeder-storage unit to shelter the beef herd in winter. It will have a capacity of 150 tons of hay. The Cyrs figure they lose too much hay when it is fed out on the ground.

"Every year I say I'm finished building," Eugene said ruefully, "but there's always something more to be done." V

## MAKE SALINE SOILS PRODUCTIVE

(Continued from page 15)

wheat yields by 7-9 bushels which was 3-5 bushels per acre above the increase provided by commercial fertilizer. One hundred tons of manure per acre not only increased yields for a period of 3 years but reduced the saline concentration temporarily. Undoubtedly, the additional moisture-holding capacity provided by the manure was a big factor here.

However, although manure and fertilizer applications enable saline

soils to produce better crops, they don't change the basic salinity. Their benefits are temporary, not permanent. Even the benefits of a mulch are temporary.

Summerfallowing increases soil salinity. Salts from sub-surface layers of the soil become dissolved in soil moisture and in the unprotected summerfallow, surface evaporation moves salt up to the surface where it is left as a crust on the surface and as particles throughout the topsoil.

Saline problems appear to increase in Saskatchewan following weather cycles. Wet weather of the mid-1950's built up the sub-surface mois-

ture of farmlands and this tended to dissolve sub-surface salts. As drier weather followed, water evaporated, depositing salt at the surface, particularly in low lands and in rings around sloughs. Heavy rains moving downward in the soil tend to take dissolved salts from the surface back to sub-surface areas, so that nature herself can be either the cause or the cure for excessive saline conditions in soil. Heavy rains following fairly dry periods assist in moving down salts.

While a high salt content in soils may be toxic to plants, it appears as though the major problem is the grip which salt has upon soil

water, preventing plant roots from absorbing it as freely as required, along with dissolved nutrients. Salty soils also lack water-holding capacity and the soil structure needed for healthy plant growth.

There is evidence as well to indicate that a salt condition is often linked to a higher than normal concentration of the trace element boron. Boron is present in most mineral soils and is a necessary trace nutrient for healthy growth. In larger amounts, however, boron is extremely toxic. Saline soils, therefore, might be providing plants with a combination of too little nutrients, and poisonous amounts of boron. V

## Far Ahead in Career Opportunities: THE GRAPHIC ARTS INDUSTRIES



## MANAGER SALESMAN DESIGNER CRAFTSMAN

... and many other occupations; if you have talent and drive, you can get ahead in the graphic arts industries.

Look-ahead people regard printing and the allied graphic arts industries as the place to find career opportunities, because:

- There is a growing need for more highly trained management and supervisory personnel in financial, sales, production and personnel roles.
- These industries employ more creative personnel and skilled men and women at higher wages than any other manufacturing industry in Canada.
- They employ more people than any other Canadian manufacturing industry — more than 104,000 employees in over 3,400 plants. They spend nearly \$500 million annually in materials and services, and over \$400 million in wages and salaries to produce sales of over \$1-1½ billion per year.

- The Graphic Arts Industries — embracing typesetting, engraving, printing, binding and supporting services such as typographic design and commercial art — are so diversified and inter-related with every other industry that they offer unequalled chances for fascinating careers with security and opportunity for advancement.

For a booklet containing more information about career opportunities in printing and the other graphic arts, write to:

**GRAPHIC ARTS INDUSTRIES ASSOCIATION**

75 Albert Street, Ottawa 4, Ontario

# Letters

## Net Income Declines

I like the Country Guide very much but I have a bone to pick with you on an item in News Highlights. It is a report by Dominion Bureau of Statistics on farm income for 1962. The report was fine as far as it went but it didn't go far enough. It also should have reported that the realized net income of farmers in 1963 was down 5.4 per cent from 1962.

W.M.,  
Millet, Sask.

## Wants Wisdom

Regarding the Rev. Goodman's story of the man who deliberately dirtied the floor after his wife had cleaned it — that manure on the floor has been the homesteader's battle with a particular wife. If a

man's chores were profitable enough to support his family, the kitchen was his workshop during very cold weather: some milk needed warming for a calf, an iron needed heating in the fire, or a bridle must be repaired. On going out again his rubber boots became cold and the wet manure in the stable froze on tighter than glue. To use the scraper at the door would take off the sole of the boot, while to take off the boots every time, at least 40 times a day, would be impractical. Ordinary rubbers that are removed would collect the snow outside.

I knew two neighbors who fought that battle. One lost out—kept to the house most of the time in slippers but the wife had to go out to work and support the home. The other won and was prosperous but "wife" got mad and left home and later died in loneliness.

A wise person faces up to whatever condition he finds, makes the best of it and tries to improve, but the fool fights against the pricks and dies hard.

I called in at a new farm home one day and the lady asked me what I thought of it, "Very nice," I replied, "but I like your wisdom better."

"What do you mean?"

"I like the practical floors—drab linoleum."

"I like that," she replied. "When we began to plan, I told my husband there'd be no polished floors on a farm. When my children return from school I want them to enter as in a home. When a neighbor calls, I'm not going to worry about his boots and I'll keep the mop handy to flush the manure."

J.M.P.,  
Bonnyville, Alta.

## Kindness to Animals

As an ex-inspector of the Ontario Humane Society, naturally I am quite interested in the care given to animals and birds. Your wonderful publication, which my family has enjoyed for several years, does an equally wonderful job in regards to farm

livestock, with the co-operation of the various provincial agricultural departments.

Your stories in regards to animals of the wild are a delight to read, and very educational.

However, if I may make a suggestion. In my experiences in relating such stories, both to adults and children, I found that by giving a little "kindness to animals" talk afterwards, it seemed to enhance the story. A small column on Junior Page, on the care and feeding of all household pets, would, I believe, gain the full support of all Humane Societies within the scope of your great publication.

Yours for continued success.

F.C.M.,  
Lake Wilcox, Ont.

## Profitable Tree

Regarding my letter printed in the July issue, the figure was \$25—not \$825 as printed. This Van cherry tree made \$33 in 1964. The Van is a sweet cherry larger than the Bing. It is a better shipper and about 10 days earlier.

E.F.T.,  
Richmond, B.C.

## Hedlin-Menzies Report

Your August issue has just come to hand. Dr. Menzies and myself were gratified by the fact you found our report significant and found yourself in basic agreement with the conclusions and recommendations. We were particularly pleased that your editorial comment was penetrating and that you fully grasped all the implications of the findings in the questionnaires. We were delighted to read your comment.

RALPH HEDLIN,  
Hedlin-Menzies & Associates,  
Winnipeg, Manitoba.

## Vacuum in Inches

On page 28 of your July issue (Vacuum pump for manure) you use the term 5 lb. of vacuum. Would this not be 5 inches of vacuum? Vacuum is a pressure below atmospheric, usually measured in inches.

E. TOURANGEAU,  
Cornwall, Ont.

ED. NOTE:

Mr. Tourangeau is quite correct. Editor Peter Lewington comments "I am at a loss to explain this lapse on my part, as I have for many years milked cows of my own and kept one eye cocked on the vacuum gauge during milking."

## Gopher Eater Anywhere?

I am presently engaged in researching a history of the Dirty Thirties and would appreciate the help of your readers. I have a particular interest in getting out the facts in connection with the great herds of horses that roamed western Saskatchewan and eastern Alberta between 1932 and 1942. These, your readers will recall, were the raw material for the horse meat canning plant established during the war at Swift Current. How large were these herds? How many herds were there? Are there authentic cases of horse herds actually destroying gardens and crops? I would most appreciate hearing from any of your readers who have any first-hand knowledge of these horses.

I am also seeking corroboration or disproof of two Saskatchewan legends: Did any farmer ever successfully burn barley for household fuel during the depression? Is there any truth to the story that gophers were boiled and eaten, and if so, is there a surviving gopher eater anywhere?

JAMES H. GRAY,  
Grassmere Farm,  
R.R. 2, Calgary.

Designed to do a 3 fold job. • Keeps Septic System in balance. • Keeps organism vigorous—tank healthy. • Keeps drain field clean, soil friable. Septo-Bac keeps Septic Systems in peak operating condition by preventing trouble. Made in Canada for Canadian Conditions. Sold at Leading Hardware, Drug and Department Stores.

**TILLEY'S LIMITED**  
430 COLLEGE STREET • TORONTO 2B, ONTARIO

## the monthly magazine for beef producers

If you raise beef for market, you should read each issue of Canada's only publication for the commercial cattleman. It brings you up-to-date information on new methods to get your stock to market at greater profit.

- FEEDING
- PASTURAGE
- ANIMAL HEALTH
- HAY-CROPPING
- MARKET FORECAST

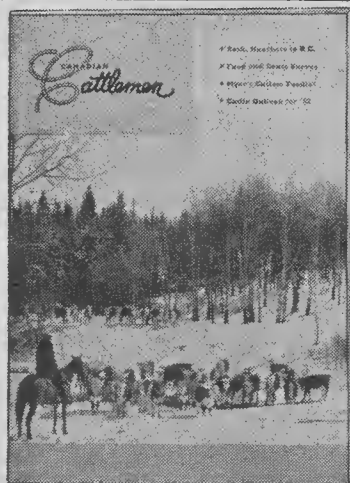
Use this handy form to send in your subscription, now.

### CANADIAN CATTLEMEN

1760 Ellice Ave., Winnipeg 21, Man.

NAME \_\_\_\_\_  
(please print)  
ADDRESS \_\_\_\_\_

I am enclosing ☐ \$2.00 for one year subscription; ☐ \$3.00 for 2 years; ☐ \$4.00 for 3 years; ☐ \$5.00 for 4 years.



Hi Folks:

There is one feature of modern living I can't abide and that's air conditioning. You can talk about its benefits until you're blue in the face (if you have air conditioning you're probably blue with cold all over) but you'll never convince me. When summer comes I want to go around in light clothing and soak up all the heat I can get. I don't want to sit there shivering with goose pimples on my arms and legs. In my part of the country we don't get so much summer that we can afford to waste any.

My biggest trouble comes when I have to take a trip somewhere. No matter what the outside temperature is, some of these motels just automatically turn on the air blast as soon as the calendar says it's summer. What's worse, most of the systems I come up against are made so you can't shut them off. You just have to sit there and take it. If the motel owner has a fiendish turn of mind, he has the vent placed right

over the bed so this icy blast pours down on you all night.

One place I stayed at last summer was so bad it was like trying to sleep in a wind tunnel. When I got under the covers to try and escape the cold, I almost suffocated. By the middle of the night I could stand it no longer. Jumping out of bed, I grabbed a broom and started banging away at the metal cone guarding the fan, hoping I could injure the machine in some way. When that failed, I decided to go outside and locate the master switch. But my wife said if I pulled this, all the refrigerators would stop and the food would spoil. I got a blanket and wrapped it around my head and climbed back into bed. In the morning, I woke up with a nasty cold. Outside, the birds were singing happily in the warm summer sunshine.

At the next motel, the slits in the fan guard were wide enough for me to slip the blade of my knife in. I didn't kill the machine, but it let out a loud squawk, and thumped around a bit before my knife broke. That night, a "chunk-chunk" noise was added to its whine so sleep was impossible. It was still chunking this year. The motel owner has had his revenge by giving me this same unit.

Sincerely,  
PETE WILLIAMS.